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Improving Outcomes for Students with Autism and Their Families: Investigating the Use of Direct Behavior Rating to Collect and Communicate Student Data Across Settings

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The quality of cross-systems collaboration has been associated with improvements in parental satisfaction, student outcomes, and family-school partnerships. This is particularly relevant for students with a Pervasive Developmental Disorder (e.g., Autism), a population that has an increased need for such efforts. However, there is a lack of cost-effective and efficient tools to facilitate communication across these settings (among home, school, and services provided outside of the school). There is also a need for quick and easy-to-use student progress monitoring methods to inform decision making. This study utilized Direct Behavior Rating (DBR), a method of behavioral assessment that has been described as offering an efficient, flexible, and defensible option (e.g., Chafouleas, Riley-Tillman, & Christ, 2009), to collect data through a home-school log. This log was used to facilitate cross-systems communication and data-based decision making among parents and professionals within and outside of school, to ultimately improve student outcomes for children on the Autism spectrum, who are often at an increased need for consistent and coordinated care and frequent progress evaluation. A single-subject multiple baseline design across four child participants was used to evaluate improvements in student outcomes. Results indicated small to moderate improvements in participants' self-reported perceptions of their cross-systems communication and data-based decision making practices from pre- to post-implementation of the home-school

log. When comparing students' behavioral data during the baseline and intervention phases of the home-school log intervention, weak to moderate improvements in students' academically engaged and non-disruptive behaviors were noted. These results provide guidance for ways to improve upon the procedures utilized in this study to potentially garner stronger effects. Implications for practice and research are discussed.

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Improving Outcomes for Students with Autism and Their Families: Investigating the Use of Direct Behavior Rating to Collect and Communicate Student Data Across Settings

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Statement of the Problem

Public schools are required by federal law to provide children receiving special education services with evidence-based practices and to involve parents in those practices (Individuals with Disabilities Education Improvement Act [IDEA] of 2004). However, schools are in need of ways to facilitate this process (Gonzalez-DeHass & Willems, 2003). Additionally, collecting data on progress being made toward a student's educational goals is required. The need to attend to these IDEA (2004) mandates is particularly pressing for students with a Pervasive Developmental Disorder (PDD), who may receive individualized services in and outside of school. Parents report frustrations and difficulties in appropriate educational programming and skill acquisition for their child, in part due to inadequate communication and coordination of services (Autism and PDD Support Network, 2005; Hetherington et al., 2010).

For example, students with PDDs such as Autism, often receive services from many different professionals in several settings (e.g., home, general education classroom, special education resource room, school and community-based speech/language therapy, occupational therapy, physical therapy). Thus, they have an increased need for frequent, positive interactions and communication between parents and professionals (O'Brien & Dagget, 2006). Communication among these different service providers has been associated with increased quality of care for students (Bruder, 1996; Epstein, 1995). In particular, *cross-systems communication* (back and forth communication among home, school, and community settings) has been associated with improved parent-educator relationships and student outcomes (Bruder, 1996; McCain & Kelley, 1993).

Furthermore, in this age of accountability and data-based decision making, educators need quick ways to collect data to monitor student progress and evaluate intervention/program effectiveness. In 2001, the National Research Council conducted a review identifying effective program components for children with a PDD. Among the effective program components identified, ongoing progress monitoring and program modification were cited. In addition, collaboration between parents and teachers was noted as essential for helping promote consistency (National Research Council, 2001). In 2009, the National Autism Center also identified these areas as important for effectively servicing children with a PDD. Thus, a systematic yet simple method to both *increase communication* among various providers/settings and *monitor student progress* throughout those settings may address these goals. Direct Behavior Rating is a method of assessing student behavior efficiently and defensibly that has the potential to fulfill both of these needs (Chafouleas, Riley-Tillman, & Sugai, 2007).

Purpose of the Study

The purpose of the current study was to develop a tool that key individuals in a child's life could utilize to improve the (a) frequency and quality of cross-systems communication, (b) consistency and coordination of services, and (c) the frequency of progress evaluation and data-based decision making. These key components were addressed through use of a home-school-community log that individuals were to use daily to communicate about the child's behavior across settings and bi-weekly to evaluate the student's behavioral progress. The consistent and frequent use of the tool was hypothesized to provide a conduit to enhance cross-systems communication and data-

based decision making practices, which could thereby improve student behaviors that are important for school success.

Chapter II: Review of the Literature

Impact of Autism Across Systems

Currently, the prevalence of Pervasive Developmental Disorders is on the rise, with some studies reporting as many as 1 in 88 births in the United States (Centers for Disease Control and Prevention, 2012). Children who meet diagnostic criteria for having a Pervasive Developmental Disorder are characterized as having (a) marked impairments in reciprocal social interaction, (b) significant qualitative impairments in communication, and/or (c) restricted repetitive and stereotyped patterns of behavior, interests, and activities (DSM-IV-TR: American Psychiatric Association, 2000).

The presence and degree of impairment in these areas affects what services are provided, as well as which specific diagnosis within the overall classification of Pervasive Developmental Disorder the child is given (e.g., Autistic Disorder, Asperger's Syndrome, Pervasive Developmental Disorder-Not Otherwise Specified). For the purpose of this investigation the disorders will be referred to collectively as Autism Spectrum Disorders (ASDs), as the educational classification category, called simply *"*Autism,*"* encompasses all Pervasive Developmental Disorders that impact a child's educational progress (IDEA, 2004). Also, the focus of this review of the literature is not the specific disorders, but rather the impact that these disorders can have on communities, schools, and families. Practices that facilitate the coordination of services for a student may reduce redundancy and facilitate generalization of skills across settings, thus improving student outcomes, promoting the student's inclusion in the general education classroom setting, and reducing the cost to society (Bruder, 1996; Buysse, Skinner, & Grant, 2001, DeLoach et al., 2012).

Community. Often it is thought that the prevalence of ASD is a problem for schools and specific families inflicted with the disorder, however it is a problem that concerns communities as well. The Autism Society of America estimates that the lifetime cost of caring for an individual with an ASD ranges from $3.5 to $5 million, and that the United States is facing a staggering $60 billion each year in costs for such individuals (2011). This estimate includes a number of factors including educational spending and the costs of related therapeutic services. Families of children with an ASD often seek community-based therapeutic services to supplement the in-school services provided for their child (Montes, Halterman, & Magyar, 2009). These services can be fairly costly and are often subsidized by taxpayer funds. Also, some children have impairments that are so severe that the school district cannot provide adequate services and thus the district must pay for the student to be placed outside of the student's hometown school. Furthermore, some parents advocate for their child to be placed in an expensive specialized school that can provide intensive individualized services. In 2006, 10.5% of individuals with an ASD aged 6 through 21 were currently placed in a separate public school, private school, residential facility, or homebound/hospital environment (U.S. Department of Education, 2011). Many continue to be placed in expensive specialized schools for the duration of their school careers.

School. The burden on public schools is to provide high-quality academic instruction and to facilitate adaptive functioning and socio-emotional development for all students so that they do not have to be outplaced. Research shows that an important component of promoting socio-emotional development in children with a disability is providing the child with ample opportunities to interact with typical peers who model

appropriate behavior, which is done most efficiently in an inclusive setting where typical students in the classroom can serve as natural or trained models (CT State Department of Education, 2007; Jones & Schwartz, 2004; National Autism Center, 2009). Practices that facilitate the coordination of services for a student may reduce redundancy and facilitate generalization of skills across settings, thus improving student outcomes, promoting the student's inclusion in the general education setting, and reducing the cost to society (Bruder, 1996; Buysse, Skinner, & Grant, 2001).

Home. Families of children with ASDs typically experience a number of difficulties at home, particularly in terms of managing their child's behaviors (Miller Kuhaneck & Britner, 2010). Children with Autism often experience difficulty generalizing skills that they learn in one setting (e.g., school) to another setting (e.g., home; Ghezzi & Rogers, 2011). Thus, especially in the early years, in addition to in- and out-of-school services, children with an ASD often receive in-home services that usually include a behavioral component (Myers & Johnson, 2007). Additionally, parents also often utilize techniques in order to manage their child's behaviors (Prelock et al., 2011). Ideally, behavior management practices used with the child are consistent across various settings and individuals. However, there is often a lack of high quality, consistent communication between the child's educators and service providers (e.g., Altshuler, 2003). This makes coordinating services and goals across settings difficult. For children with an ASD who already have a particularly difficult time generalizing skills across settings, the lack of consistency may have a negative impact on their likelihood to generalize.

Previous research suggests that consistency between parents provides typically developing children with clear expectations for which behaviors are appropriate and which behaviors are unacceptable at home (Lane, Stanton-Chapman, Roorbach, & Phillips, 2007; Reid & Patterson, 1991). Similarly, the consistency between adult expectations across settings may provide children with an ASD clear expectations for what is and is not appropriate at home, school, and in the community. Thus, the use of consistent terminology, goals, and consequences (e.g., reinforcement, disciplinary practices) may improve behavioral outcomes for children with an ASD.

Cross-Systems Communication

Establishing and maintaining collaborative efforts across these various *systems* (i.e., home, school, and community spheres of influence) in a student's life can help educators, service providers, and parents build a relationship of open, meaningful communication to improve student outcomes (Bronfenbrenner, 1977; Christenson, 2004; Epstein, 1995; Sheridan & Kratochwill, 2008). *Cross-systems collaboration* is defined as "a process by which providers across multiple support systems join together to identify needs, pool resources, and achieve goals for enhancing outcomes for children" (Sheridan, Magee, Blevins, & Swanger-Gagne, 2010, p. 532). These "multiple support systems" can include families, schools, religious organizations, health providers, juvenile justice, etc. In fact, to date, most literature on *cross-systems collaboration* in education has focused on its use to improve outcomes for juveniles who are considered by the court system to be delinquent (e.g., Abram, Mahaney, Linhorst, Toben, & Flowers, 2005). The goal of this project is to focus on the key individuals in the home, school, and community settings that directly impact the progress of students with an ASD and thus can benefit

from enhanced collaborative efforts (i.e., Bronfenbrenner's micro- and meso-systems, 1977). Most research involving elementary-school age children with disabilities has focused on enhancing *home-school collaboration* (without much involvement of other systems such as community services), thus it is relevant to review that literature base next.

Several empirically based research studies have found that interventions involving parents and/or families to various extents have shown efficacy for positively impacting children's education (Blair, Lee, Cho, & Dunlap, 2011; Christenson & Carlson, 2005; Sheridan, Knoche, Kupzyk, Edwards, & Marvin, 2011; Sheridan et al., 2012), and a national survey also found a high association between family involvement and positive student outcomes (Newman, 2005). A meta-analysis of evidence-based interventions, using *home-school collaboration* specifically, has shown such interventions to be highly effective in contributing to the achievement of positive student outcomes (Cox, 2005). Esler, Godber, and Christenson (2008) define *home-school collaboration* as the process of building and maintaining positive, working relationships between families and schools to facilitate students' education. To date, limited research has been conducted on assessing the effectiveness of *home-school collaboration* for improving services for students with Autism. In one study, Devlin and Harber (2004) evaluated the effectiveness of collaborative efforts between parents and school professionals for intervening for a five-year-old boy with Autism. Discrete trial training (DTT) was used across both home and school. Key personnel involved were the student's parents, siblings, special education teacher, resource teacher, and speech pathologist, all of whom met weekly to

compare data collected in order to move smoothly from objective to objective. Results revealed a meaningful increase in desired skills.

In addition to research on home-school collaborative efforts showing benefits for children, *interdisciplinary collaboration* is often discussed in medical and health literature as being highly beneficial for children with an ASD (Carbone, Behl, Azor, & Murphy, 2010). However, in a recent national phone survey, parents of children with Autism reported experiencing lack of coordinated care across various disciplines including medicine, education, therapy, and mental health (Brachlow, Ness, Mcpheeters, & Gurney, 2007). In its simplest form, interdisciplinary collaboration consists of an interaction between individuals from two or more disciplines (Shor, 2010). In education, interdisciplinary collaboration involves a team approach in which each professional (in and outside of school) assesses and provides services for the student, but is also committed to communicating information to facilitate the process of assessing, planning, and intervening (Bruder, 1996). This has been associated with improved efficiency for the professionals working on the student's team, as well as better services for the student (Bruder, 1996). It has also been discussed as having a positive impact through combining resources to increase the range and quality of solutions, diversity in expertise, and integrity of educational programs (Bronstein, 2003; Esler et al., 2008; Sheridan et al., 2010). This may be particularly useful for children with an ASD for whom a great number of resources are often expended (Autism Society of America, 2009). Effective communication is one component that can improve interdisciplinary collaboration, as professionals outside of the school often have valuable information about the student's performance and needs, but usually are unable to attend school-based team meetings

(Sheridan et al., 2010). However, there is a paucity of research on efficient ways to share information and data between professionals formatively.

There are many factors involved in developing collaboration across systems, including communication (Sheridan et al., 2010). Communication is a key component for involving parents and professionals (Epstein, 1995). It is also essential for utilizing the unique perspectives and expertise that each individual can contribute in order to meaningfully enhance the student's learning experience (Sheridan et al., 2010). Sheridan et al. (2010) suggest that this can be best accomplished through "frequent, open communication and predictable, consistent follow-through" (p. 532). The Future of School Psychology Task Force on Family School Partnerships (2007) cites *communication* as being essential to establishing effective collaboration. Communicating is defined as creating and implementing effective two-way communication about student progress (Sanders, 2008). Consistent, two-way messages between home and school can potentially minimize some of the barriers facing students by increasing the opportunity for positive communication, promoting consistency of consequences across settings, and encouraging collaborative problem-solving efforts (CT State Department of Education, 2007; Esler, Godber, & Christenson, 2002; Esler et al., 2008). Epstein (1995) proposes redefining communication about student progress as "two-way, three-way, and many way channels of communication that connect schools, families, students, and the community" (p. 709).

Communication between systems has also been associated with parental satisfaction. Parents of children with Autism attending mainstream schools in a county in England were asked to complete a questionnaire about their experiences, views, attitudes,

and levels of satisfaction (Whitaker, 2007). How much the parents felt that school staff (a) understood their children's difficulties and (b) accommodated their children's needs were strongly associated with parental levels of satisfaction. Both the extent and quality of reciprocal communication between home and school settings were also strongly associated with levels of satisfaction.

A tool for communicating. Home-school notes are a type of evidence-based practice that has been used in schools for years to involve parents in their child's education, improve communication between parents and educators, and collect behavioral data (Chafouleas, Riley-Tillman, & Sassu, 2006; Future of School Psychology Task Force on Family School Partnerships, 2007; Kelley, 1990). Several studies have shown that the use of home-school notes to communicate behavioral data and facilitate provision of home-based reinforcement for good behavior is associated with improvements in student behavior in classrooms. For example, using a reversal (ABAB) design, researchers examined the effectiveness of a home-school note intervention to improve the in-school behavior of a five-year-old boy with attention deficit hyperactivity disorder (ADHD; McCain & Kelley, 1993). During treatment phases, the teacher evaluated the student's behavior and parents provided the boy with consequences based on the teacher's evaluation. The boy was found to have increased attention, decreased disruption, and decreased change in activity level during the treatment phases. These improvements seemed to be functionally related to the use of goal setting and home-based contingencies. Unfortunately, work in this area for children with an ASD is limited.

Taken together, results of work on home-school collaboration and communication suggest that parents, including parents of children with an ASD, are more satisfied when

there is high quality communication between home and school, and that student behavior can improve as a result of collaborative efforts and home-school note interventions (Cox, 2005; Devlin & Harber, 2004; LeBel, Chafouleas, Britner, & Simonsen, 2012; McCain & Kelley, 1993, 1994; Whitaker, 2007). Interdisciplinary collaboration has the potential for improvements in the quality of care for students (Bruder, 1996; Carbone et al., 2010). A framework for promoting collaboration across these various systems and providers (family, educators, service providers) has been termed *cross-systems collaboration* (Sheridan et al., 2010). However, there are many barriers to cross-systems collaboration, including a lack of brief progress monitoring tools that can be frequently communicated and shared among parents, educators, and service providers (Bruder, 1996; Riley-Tillman, Chafouleas, Christ, Briesch, & LeBel, 2009). Home-school notes can facilitate communication, but thus far their use has been limited to communication between home and school. Thus, the development of tools to facilitate *cross-systems communication* (i.e., meaningful, data-driven communication among the key individuals involved in a child's learning across multiple settings) is an important area warranting further research.

Direct Behavior Rating

Formative assessment of student behavior (i.e., collecting ongoing information as the student develops) is important for monitoring student progress and informing program effectiveness and modification (Chafouleas, Riley-Tillman, & Sugai, 2007; Fuchs & Fuchs, 1986). Evidence suggests that progress monitoring data should be collected often, so as to obtain enough data to interpret the student's behavioral progress (Chafouleas, Christ, Riley-Tillman, Briesch, & Chanese, 2007). Also, daily monitoring is often a positive procedure for students, because in a home- or school-based reward

system, the child can earn a tangible reward or positive attention daily, producing a more immediate reinforcement schedule (Chafouleas, Christ, et al., 2007). When assessing student behavior, it is important to gather information from multiple sources and settings (Merrell, 2008). However, there is a lack of quick and efficient methods for collecting such data. Behavior rating scales are often lengthy, taking up much educator time to complete, and most cannot be administered frequently. Systematic direct observation (SDO) can be used frequently, however it typically requires an external observer to focus on the target student, which can pose resource demands in most schools.

Direct Behavior Rating (DBR) is a form of behavioral assessment that combines elements of rating scales and SDO (Chafouleas, Christ et al., 2007). DBR has many different variations with various labels including, daily behavior report card (DBRC), good behavior note, and home-school note (Chafouleas, Riley-Tillman, & McDougal, 2002). Put simply, DBR involves making a brief rating of pre-specified target behaviors at the end of a pre-specified observation period. Thus, DBR has the potential to be more efficient and feasible as a progress-monitoring tool than either rating scales or SDO, as teachers can use DBR daily to quickly estimate the amount of time that a student displayed target behaviors during target activities (Riley-Tillman, Chafouleas, Christ, Briesch, & LeBel, 2009). It is important to note that DBR is not a substitute for either of these methods, but rather it can be used in conjunction with these other methods as a progress-monitoring tool. Several research studies have been conducted recently to evaluate the *flexibility*, *efficiency*, *repeatability*, and *defensibility* of DBR as a method of formative assessment, features that have been identified by researchers as being

important for evaluating the utility of progress monitoring tools (Chafouleas, Riley-Tillman, & Christ, 2009).

DBR has been rated by users as being a familiar and flexible behavior assessment tool (Chafouleas, Riley-Tillman, & Sassu, 2006; Riley-Tillman, Chafouleas, Briesch, & Eckert, 2008). It typically takes 10-60 seconds to collect DBR data at the end of an observation period, thus a general education teacher or anyone working with or observing the child can collect data quickly and frequently (e.g., daily, multiple times a day), resulting in the potential for increased efficiency and repeatability compared to SDO and behavior rating scales. Research has suggested that DBR may be more efficient, less costly, and less complex than other progress monitoring tools (Fabiano, Vujnovic, Naylor, Pariseau, & Robins, 2009).

Research has also demonstrated the defensibility (i.e., psychometric or technical adequacy) of using DBR Single-Item Scales (DBR-SIS) as an assessment method, which is important for developing guidelines for form creation and implementation (Christ, Riley-Tillman, & Chafouleas, 2009). DBR-SIS is a form of DBR in which only one target behavior is rated per scale (Chafouleas, Riley-Tillman et al., 2009). Investigations comparing DBR-SIS data to SDO data have revealed high concurrent validity and moderate to high reliability (r=.481 to .874; Chafouleas, McDougal, Riley-Tillman, Panahon, & Hilt, 2005; Riley-Tillman, Chafouleas, Sassu, Chanese, & Glazer, 2008). This lends support for DBR-SIS as a behavioral assessment method that can be used in conjunction with SDO and other methods (Riley-Tillman, Chafouleas, Sassu, et al., 2008). DBR-SIS forms vary in the types of scales used, as well as the types of behaviors rated. For example, the number of scaling gradients used can vary, however it is

important to use a scale that will produce enough variability and sensitivity to change (e.g., 11-point scale; Chafouleas, Christ, & Riley-Tillman, 2009). Also, the types of behaviors rated can vary, although there is some evidence that positively stated global behaviors (e.g., *academically engaged* and *non-disruptive*) produce more accurate ratings (Christ, Riley-Tillman, Chafouleas, & Jaffery, 2011; Riley-Tillman et al., 2009).

Although recent research has focused on DBR as an assessment tool, DBR actually has a long history as a communication tool particularly in the form of structured home-school notes (LeBel et al., 2012; Chafouleas et al., 2006; Riley-Tillman, Chafouleas, Briesch, et al., 2008; Kelley, 1990). However, there is a paucity of research on applying *DBR-SIS* to *cross-systems* communication interventions. To capitalize on research demonstrating the defensibility of DBR-SIS as a method of formative assessment, a cross-systems communication tool may benefit from using elements of DBR-SIS related to improved rating accuracy (i.e., 11-point scale, general outcome behaviors). A cross-systems communication tool utilizing DBR-SIS could serve multiple purposes as (a) a technically adequate and contextually relevant progress monitoring tool and (b) a tool with which to facilitate collaborative efforts focusing on information communication and consistency. Furthermore, collecting behavioral data from multiple persons is an important part of gathering a clear picture of student behavior across settings, and such multi-rater assessment is an essential component of cross-systems collaboration (Merrell, 2008; Shor, 2010). Cross-systems communication tools have the potential to facilitate the collection of student data across persons and systems in a student's life.

Data-Based Decision Making

Frequently collecting behavioral data for students with behavioral needs is important, however what is done with those data is even more important. Assessment data should be used to inform intervention development, modification, and evaluation. For example, within behavioral consultation, an important part of treatment implementation is ongoing assessment and evaluation of progress towards goals (Kratochwill & Bergan, 1990; Sheridan & Kratochwill, 2008). Fuchs and Fuchs (1986) found that graphically displayed data can aid teachers in making educational decisions and that this can have a positive impact on student performance. Furthermore, students whose teachers monitored their progress towards goals systematically (not just through subjective evaluation of the data, but through the use of decision rules) and formatively over time had higher achievement than students whose teachers evaluated the data using their own judgment. Having standard, systematic guidelines for discerning data patterns, interpreting the patterns, and decision rules for deciding what to do next can have a positive impact on student performance (Fuchs & Fuchs, 1986).

There are several sources that provide such guidelines (Daly, Barnett, Kupzyk, Hofstadter, & Barkley, 2010; Riley-Tillman & Burns, 2009; Heartland Area Education Agency, 2007, 2010). For example, if the data pattern shows that a student is making sufficient progress toward goals, the appropriate action may be to continue to monitor progress but make no changes to the current intervention (Riley-Tillman & Burns, 2009). However, if the student is not making sufficient progress but the goal is deemed to be appropriate, it may be necessary to try a different procedure by altering the antecedent and consequent conditions (Riley-Tillman & Burns, 2009). If data are highly variable, the

intervention may not have sufficient control over the behavior, thus compliance training, performance feedback, treatment integrity, satiation of rewards, and possible outside factors should be addressed (Daly et al., 2010). Although these guidelines exist, checklists providing a simple structure and process for completing these tasks can improve their utility and may even enhance and make more efficient the provision of services across systems (Gawande, 2009). Professionals need quick, easy ways to access this information, make decisions, document such decisions, and share the information with others in order to monitor and evaluate student progress systematically (Vickers & Minke, 1995). This sort of systematic data-based decision making that is shared across systems may be highly beneficial for students with an ASD who typically receive services across disciplines and settings.

Statement of Purpose

A tool that uses DBR-SIS and gives a systematic structure and process for communicating and evaluating student data across systems may prove to be an efficient progress-monitoring tool that can also enhance cross-systems collaboration, data-based decision making, and ultimately improve student outcomes for children with Autism. The purpose of the current study was to provide schools with a home-school-community log utilizing DBR-SIS instrumentation and procedures to facilitate cross-systems communication and data-based decision making for individuals working with elementary students with an ASD. Student outcome data was monitored to evaluate whether use of the log, which was also intended to improve the consistency of communication and consequences across settings, also helped to improve student behavior.

Thus, to extend upon previous literature in this area, the following was the hypothesized theory of change in the current study: using the home-school-community log will improve cross-systems communication and data-based decision making among the key adults involved in each individual student's microsystem (i.e., school, family, community services; Bronfenbrenner, 1977), which will thereby lead to improved student outcomes related to specific behavioral targets. A priori statements about sufficiently significant effect sizes could not be made due to the lack of prior research in this area.

Research Question

Can use of a home-school-community log among key adults involved in supporting students on the Autism spectrum improve (a) adults' perceptions of cross-systems communication and (b) frequency of data collection, data sharing, and data use to make decisions, in order to (c) improve positive student behavioral outcomes?

Hypothesis: It was hypothesized that (a) adults' perceptions of cross-systems communication would improve as measured by self-report, (b) data would be regularly shared and evaluated to inform educational decisions as measured by permanent product data, and that this would be an improvement from previous practices as measured by self-report, and (c) students' behavioral outcomes would improve as measured by DBR-SIS and SDO data.

Chapter III: Method

Participants

Two public elementary schools in a suburban town located in the Northeast participated in the study. The schools were recruited for participation through the researchers' contacts and a letter of permission from each school was obtained. School 1 contained grades PreK-2 and School 2 contained grades 3-5. School 1 had 651 students, 48 of whom were ethnically diverse (7.4%); School 2 had 707 students, 55 of whom were ethnically diverse (7.8%). School 1 had 57 students receiving special education services (8.8%), whereas School 2 had 100 students (14.1%). Additionally, School 1 had 26 students receiving free or reduced price lunch (4.0%), whereas School 2 had 30 students (4.2%; see Table 1).

All student participants had previously received a medical diagnosis of Autistic Disorder or PDD-NOS and were classified with Autism per educational (IDEA, 2004) guidelines. This information was confirmed through an educational record review by the doctoral student researcher. Additional criteria for inclusion in the study were that the students (a) function in a manner that allows them to attend an inclusive public school classroom for at least 80% of their school day, and (b) have problematic levels of academic engagement and/or disruption in the classroom as identified by teacher reports and confirmed by observational data (i.e., qualifying students will display 75% or less engagement and/or 25% or more disruptive behavior during observed intervals via momentary time sampling and partial-interval recording).

Consent forms were distributed to interested educators and parents. Four children (two 1st graders, one 3rd grader, and one 4th grader) with the educational classification of

Autism (which can include students who have received a medical diagnosis of Autistic Disorder, Asperger's Syndrome, or PDD-NOS) participated in the study. Of the child participants, three were boys and one was a girl, which was expected as ASDs are more prevalent in males (National Autism Center, 2009). A minimum of three key adult individuals in the students' lives (i.e., one parent, one teacher, and one school-based service provider per child who was able to observe the student daily) was required for participation. Overall, 16 adults participated in the study (i.e., 3-5 adults per student; 15 female, 1 male). These adult participants included parents and in-school professionals (i.e., general education teachers, special education teachers, paraeducator, speech/language pathologist, occupational therapist, school psychologist). The two 1st grade students had the same special education teacher, so she participated in rating student behavior for both students. At onset of the study, the four student participants were not seeing any relevant out-of-school service providers. Therefore, no applicable out-of-school professionals in the community were available to be recruited for participation in the study (thus the home-school-community log will be referred to as the Home-School Log). All participants were White, Non-Hispanic and English speaking. Participating educators were between 24 and 59 years of age (median age = 46) and had been working in the field of education for 3-36 years (median # of years = 24). At onset of the study, these educators had been working with their respective student participants for 2-4 months (except for the occupational therapist, who had been working with her student for 2 years).

Student 1 was a 7-year-old boy in 1st grade with a medical diagnosis of Autistic Disorder. He lived with his mother, father, and twin sister. His mother, general education

classroom teacher, special education teacher, occupational therapist, and paraeducator all participated in the study.

Student 2 was a 6-year-old boy in 1st grade with a medical diagnosis of Autistic Disorder. He lived with his mother, father, and one sibling. His mother, general education classroom teacher, special education teacher (same as Student 1's), and speech/language pathologist all participated in the study.

Student 3 was an 8-year-old girl in 3rd grade with a medical diagnosis of PDD-NOS and ADHD, Predominantly Inattentive Type. She lived with her mother, father, and older sister who has Asperger's Syndrome. Her mother, general education classroom teacher, and school psychologist all participated in the study. Of all four student participants, Student 3 was the only one who prior to the study already had behavioral data being collected and shared with her parents daily via a sticker chart that was linked to a reward system at home. She was not successfully earning the home rewards and the data were not being evaluated systematically, thus this was discontinued once the Home-School Log intervention began.

Student 4 was a 9-year-old boy in 4th grade with a medical diagnosis of PDD-NOS and Tic Disorder. His parents were separated, thus he and his younger sister lived with their mother for part of the week and with their father the rest of the week, thus strong systematic communication across settings was imperative for them. His mother, father, general education classroom teacher, special education teacher, and paraeducator all participated in the study.

Materials and Measures

Background/Demographic Forms. All adult participants completed a parent, teacher, or educator/service provider version of this form upon consenting to participate in the study. These forms were used to gather information on participants' demographics (e.g., age, sex, socioeconomic status, size of household, and highest degree attained) and student's diagnosis, educational history, etc. (see Appendix A). Additionally, the researcher completed a school demographic form for each school in order to gather general information on the total number of students as well as the number of (a) ethnically diverse students, (b) students receiving special education services, and (c) students receiving free or reduced-price lunch (see Appendix A).

Diagnostic Criteria Checklist. Once parental written consent was obtained, the doctoral student researcher conducted a record review for each student and the American Psychological Association's criteria for Autistic Disorder and PDD-NOS were used to verify each student's diagnosis (2000; see Appendix B).

Pre- and Post-Intervention Surveys for Professionals and Parents. The researcher developed a *Pre-Intervention Survey for Professionals* and a *Pre-Intervention Survey for Parents* to confirm the need and desire for improved cross-systems communication and family-school partnership before starting the study (see Appendices C and D). The researcher also developed a *Post-Intervention Survey for Professionals* and a *Post-Intervention Survey for Parents* to gather participants' perceptions of whether cross-systems communication, family-school partnership, data-based decision making, and student behavioral outcomes improved (see Appendices E and F). Parents and professionals (i.e., educators/service providers) were asked to complete the appropriate

post-intervention survey at the end of the study. These researcher-developed surveys were created based on extant research on assessing perceptions of improvement in family-school partnership, school climate, and home-school communication (Colorado Department of Education, 2009; Irvin et al., 2006; Izzo, Weissberg, Kasprow, & Fendrich, 1999; Kohl, Lengua, & McMahon, 2000; Messick, 1988; National Center for Special Education Accountability Monitoring, 2006; Newman, 2005). The researcher received feedback about the survey forms from experts and stakeholders prior to implementation to ensure face and content validity. These surveys provided self-report data from the key individuals involved in the student's education and were used to help address the study's research questions on whether key individual's perceptions of cross-systems communication, data-based decision making, and student's behavioral outcomes improved. Additionally, the post-intervention surveys included a few questions assessing the participants' perceptions of the usability of the Home-School Log.

Family-School Partnership Lab Parent and Teacher Questionnaires. The Family-School Partnership Lab at Vanderbilt University created separate *Parent* and *Teacher Questionnaires* for determining parents' and teachers' perceptions towards family-school partnership and parental involvement (Hoover-Dempsey & Sandler, 2005; see Appendices G and H). The questionnaires were evaluated for face and content validity by five individuals with expert knowledge of the constructs; face and content validity were determined to be satisfactory (Hoover-Dempsey & Sandler, 2005). Empirical investigations piloting the various scales within the parent questionnaire resulted in acceptable reliability coefficients for the parent questionnaire (.78 to .88; Walker, Wilkins, Dallaire, Sandler, & Hoover-Dempsey, 2005) as well as the teacher

questionnaire (.65 to .90; Hoover-Dempsey, Walker, Jones, & Reed, 2002). In the current study, parents and general education teachers were asked to complete these surveys prior to starting the study and again at the end of the study to determine whether parents' perceptions of family-school partnership and parental involvement improved after implementation of the log. These pre- and post- comparisons are not directly tied to answering the primary research questions, however several of the instruments' questions address home-school communication, parental self-efficacy, and other secondary factors related to the research questions. Thus, such information may be helpful in assessing the potential for broader impact of the intervention.

Systematic Direct Observation (SDO) Form. The SDO Form was completed by the researcher to obtain an objective outsider perspective on each student participant's behavior (see Appendix I). Three to five observations per student were conducted during the baseline phase and five to nine were conducted during the intervention phase. Momentary time-sampling every 15-seconds during 15-minute observation periods was used to record *academically engaged* behaviors. Simultaneously, partial interval recording was used to record *disruptive* behaviors during the same intervals. Behavioral definitions used were consistent with those used for collecting DBR-SIS data. Previous studies have shown this method of collecting SDO data to have high reliability with DBR data, and thus it is considered to be a good measure for the researchers to use to corroborate daily student outcome DBR-SIS data collected by participants (Chafouleas, Riley-Tillman, Sassu, LaFrance, & Patwa, 2007). During 33%-40% of the observations for each student, an additional highly-trained doctoral student researcher also observed and recorded the student's behavior to collect inter-observer agreement reliability data.

Overall mean percent of agreement was 92.4% (number of agreements divided by number of agreements plus disagreements). When using a more stringent inter-observer agreement calculation (number of intervals where researchers' data on either behavioral target agreed divided by total number of intervals), the mean percent of agreement was 86.4%.

Baseline DBR-SIS Form. Each participating educator and service provider used a Baseline DBR-SIS Form to collect data on the students' target behaviors at the end of each target activity during the baseline phase (see Appendix J). Target behaviors rated included *academically engag*ed, *non- disruptive*, and up to two additional individualized behavioral targets chosen by the team. It is important to note that these behaviors are not mutually exclusive – a student can be academically engaged during 80% of an observation period while being non-disruptive during only 60% of the period (e.g., Tommy could be inappropriately calling out the correct answers – he is displaying *academic engagement* but also *disruption*). Pilot data showed that educators and parents would prefer to look at data on positively-stated targets, thus the behavioral target *non-disruptive* was used on the DBR-SIS forms. The behavioral target *disruptive* was used on the SDO forms completed by researchers due to the relative ease of collecting data on discrete inappropriate behaviors using a partial-interval recording method, in contrast to collecting time-based data on the absence of behavior (e.g., *non-disruptive*). On the Baseline DBR-SIS Form, a single-item scale format was used in which each behavior was rated on an 11-point (0-10) scale estimating the percentage of time that the student exhibited each target behavior during the observed activity (0=0% or Never, 5=50% or Sometimes, 10-100% or Always). When using SDO as the criterion measure, DBR-SIS

data have demonstrated high concurrent validity and moderate to high reliability (r=.481 to .874; Chafouleas et al., 2005; Riley-Tillman, Chafouleas, Sassu, et al., 2008). The general education teachers completed this form daily at the end of each target activity and the other service providers completed it during their respective target activities (i.e., daily, bi-weekly, weekly). The information gathered through the Baseline DBR-SIS form was not shared amongst participants until the Intervention phase began, as daily data sharing is a critical component of the intervention.

Home-School Log. The Home-School Log was developed based on extant research and includes an Instructions page, Behavior Descriptions page, several Daily Rating pages, and several Home Activity pages (see Appendix K). The researchers received feedback about the log from various educators, parents of children with an ASD, and university professors to improve the contextual relevance and usability of the log. The log had also been previously piloted at a K-8 school with two Kindergarten students with behavioral concerns. Feedback from the educators and parents involved in implementing the log for these students helped to further develop and improve the content and usability of the log. The log was then individualized for each student participant in the current study. The Instructions page included instructions for how to complete the Daily Rating and Home Activity page. The Behavior Descriptions page provided raters with a written reminder of the target behaviors and target activities to be rated, and also operational definitions of each behavior. The Daily Rating page used DBR-SIS formats identical to those on the Baseline DBR-SIS Form and the same behaviors were rated, however during the Intervention phase the pages stayed in the binder and were shared amongst the various educators/service providers involved. All

participating educators and service providers rated the student's behavior during the pre-specified activities in which they worked with the student and provided narrative comments if desired.

The Home Activity page included space for (a) the general education classroom teacher to write in a specific, short, time-limited activity that is connected to a social/behavioral goal (e.g., read together for 10 minutes and discuss the events in the story, facilitate reciprocal imaginative play for 15 minutes; this helped provide some guidance to parents for how to stimulate conversation and/or interact with their child), (b) the parent to write comments, questions, or concerns, and (c) a checklist for the parent to complete in order to provide information about how the student's night and morning went prior to arriving at school (e.g., did the child sleep the entire night, eat breakfast, take his/her medication, if applicable). This helped establish setting events that may have impacted the child's behavior in school (i.e., social, physiological, or environmental conditions that alter the value of reinforcers and punishers for a student, such as fighting with a sibling or being sleep-deprived; Alberto & Troutman, 2009).

All pages of the Home-School Log (including the Behavior Descriptions Page) were kept in a light-weight binder that the student took with him/her to each in-school setting in which s/he was receiving services (e.g., general education classroom, pull-out sessions with the speech/language pathologist). The binder was also taken home for participating parents to contribute. To maintain confidentiality, the last names of child participants and the name of the school was not included in the Home-School Log, but rather a Student ID Code was provided. Therefore, in case the student lost the log, it

could not be traced back to the child by anyone other than the child's educators, service providers, or parents.

Student Progress Evaluation Template. For each student, the Student Progress Evaluation Template was completed by the student's general education teacher and inserted into the log every 2-3 weeks (see Appendix L). This template included (a) graphic printouts of the DBR-SIS data from the log, (b) a data interpretation checklist providing guidelines for evaluating the data to inform educational decisions, and (c) an action plan to be established based on the data.

Treatment Integrity Checklist. A researcher completed this checklist using daily permanent product data from the Home-School Log and Student Progress Evaluation Template (see Appendix M). The researcher documented whether or not the Daily Rating pages, Home Activity pages, and Student Progress Evaluation Template were completed. These data were collected and used to assess treatment integrity, as well as to address the second research question – how often were the DBR-SIS data shared and evaluated to inform educational decisions.

Usage Rating Profile-Intervention Revised (URP-IR). The URP-IR was completed by each adult participant at the end of the study. It is a brief self-report tool that evaluates several factors important for determining the usability of an intervention (see Appendix N; Chafouleas, Briesch, Neugebauer, & Riley-Tillman, 2011). The URP-IR consists of 29 statements regarding the acceptability, understanding, home school collaboration, feasibility, system climate, and system support needed to implement an intervention. The internal consistency reliabilities of all six of these scales have been found to be acceptable (.84-.96; Briesch, Chafouleas, Neugebauer, & Riley-Tillman,

2011). Example statements include: “This intervention is a good way to handle the child’s behavior problem” and “Material resources needed for this intervention are reasonable.” Participants were instructed to rate the extent to which they agree or disagree with each statement using a six-point Likert scale (1 = strongly disagree to 6 = strongly agree). This instrument provided information on the social validity of the log.

Design

A multiple baseline single-subject design across the 4 participating students was used to demonstrate the effectiveness of the Home-School Log intervention in improving problem behaviors displayed by each student.

Procedures

Pre-Baseline. Once consent was obtained, the researcher conducted an educational record review for each student and used the Diagnostic Criteria Checklist to verify each student’s educational classification and medical diagnosis. The researchers also conducted initial observations using the SDO Form to confirm that inclusion criteria for each student (low academically engaged behavior and/or high disruptive behavior) were met. The researcher then met with each student’s team of educators and parents to discuss how they would use an individualized version of the Home-School Log and Student Progress Evaluation Template (see Appendices K and L) to help track each student’s behavioral progress and establish daily cross-systems communication between the parents and professionals. To individualize the Home-School Log, the researcher and each team of educators involved in providing services to each student (e.g., general education classroom teacher, special education teacher, speech therapist, occupational therapist) conversed about what behaviors were most relevant to rate daily and across in-

school settings and which activities were to be targeted. At least two activities were in the student's general education classroom; other activities targeted included pull-out sessions with other educators or sessions with professionals outside of the school. The general behaviors, *academically engaged* and *non-disruptive*, were rated for all students, and up to two additional optional behaviors were chosen by each student's individual teams based on what were important specific behaviors to track for the student (e.g., *compliance*, *staying in seat*). The researcher then helped the educators to agree on explicit and clear definitions of each behavior with sufficient examples of what typified that behavior, to ensure all educators were clear on the topography of the target behaviors.

Those behaviors, definitions, and examples were written on the Behavior Descriptions Page (see Appendix K, page 2). Thus, behaviors that were relevant to the student were identified and defined using common language so that all participating in-school professionals working with or observing the student were able to rate the student on the particular behaviors chosen. Other information gathered at the team meeting included: (a) social/behavioral goals for the student that can be reinforced at home, (b) how best to inform the student about the log based on the student's level of awareness (e.g., the student will be carrying it in their backpack and adults will be marking notes in it), (c) which educator or provider would take the lead on evaluating student data graphs and summarizing progress in the log every 2-3 weeks, (d) what was the previous form of communication among all of the adult participants, and (e) whether or not the previous communication system(s) would continue or would the log supersede this. The goal was for all participating adults to be present, however for three of the teams it was not

possible for all participating educators to attend, thus the researcher met with those participants individually to collect their input and inform them of the procedures. For Student 1's team, 3 out of 5 participants attended the team meeting, 3 out of 4 attended Student 2's team meeting, all 3 participants attended Student 3's team meeting, and 4 out of 5 participants attended Student 4's team meeting.

A standard training protocol was used to explain the study procedures to each adult participant (at the team meetings or at individual meetings). Those who would be rating the student's behavior also completed a computer-based DBR Training Module (www.directbehaviorratings.org/training) on their own prior to starting the Baseline phase. The training module takes 20-40 minutes to complete and has been demonstrated to be effective at improving rating accuracy (Chafouleas, Riley-Tillman, Jaffery, & Harrison, 2012). All participants completed this except for one paraeducator, one student teacher, and one special education teacher, due to time constraints. These participants were given brief in vivo training instead.

All adult participants were asked to complete the appropriate *Background/ Demographic Form* and *Pre-Intervention Survey*. Participating parents and teachers were also asked to complete the *Family-School Partnership Lab's Parent* and *Teacher Questionnaires*.

Baseline. The individuals involved in implementing the intervention were at least one parent of each student and the various service providers that worked with each student (e.g., teachers, school psychologist, speech/language pathologist, occupational therapist). Each day they were working with the student, these school-based educators and providers rated the percentage of time the student displayed each pre-specified target

behavior during various pre-specified target activities using the Baseline DBR-SIS Form (ratings were completed at the end of each activity). This happened for at least 5 days before the intervention was implemented with Student 1 to gain a sample of the student's baseline levels for each target behavior (or for more than 5 days to establish data stability for the main target behaviors, *academically engaged* and *non-disruptive*). During this time, researchers also observed each student three to five times during the baseline phase using the SDO form to obtain another measure of student behavior. Due to resource and scheduling constraints, the researcher planned observations primarily during target activities in the general education and special education classrooms.

Intervention. Once consistent baseline data were collected, school-based educators and providers continued to rate Student 1's behaviors in the same way, but this time the DBR scales were presented and kept in the Home-School Log (see Appendix K, page 3 for an example of the Daily Rating page) and raters were able to provide comments to share with each other and with the parents. At the end of each day, the student's general education classroom teacher signed the bottom of each Daily Rating page and, if desired, provided any further comments for the student's parents. Educators were encouraged to make frequent comments about positive behaviors (as well as necessary comments about disruptive behaviors), to make it less likely that parents will be upset by the information. If the student saw any other participating service providers outside of school, they would also review the log and provide any comments about the student's progress in their sessions, however there were no participating outside providers for the four student participants. Student 1 brought the Home-School Log home at the end of each day for the parent to review and sign. The parents then completed the Home

Activity, which included engaging in a short activity suggested by the general education teacher and written in the log (see Appendix K, page 4). The intervention then began for each subsequent student 3-5 days apart and continued until all students had received the intervention for 7-8 weeks. The staggered start date for each student was put in place to demonstrate experimental control in the effectiveness of the intervention. Student behavior should only improve once the intervention was implemented. In addition, the researcher conducted SDO probes throughout the intervention phase in order to have another measure of student outcomes.

Each student's general education classroom teacher received training on how to interpret graphed data and complete the Student Progress Evaluation Template. Every 2-3 weeks, the researcher created graphs of the students' daily ratings and gave them to each students' general education teacher. The teacher evaluated the graphs using the Student Progress Evaluation Template (see Appendix L). The data interpretation checklist on the template was completed and a brief action plan was stated based on the data (e.g., no change in supports, supports will be intensified/modified to include ___). The graphs and Student Progress Evaluation Template were then placed in the Home-School Log for the parents and professionals to view and make comments accordingly.

Periodically throughout both phases, researchers observed the students using the SDO Form and collected DBR data as well during target activities. The researchers also completed the Treatment Integrity Checklist using daily permanent product data from the Home-School Log and Student Progress Evaluation Template (see Appendix M).

Post-Intervention. In total, the baseline and intervention phases lasted 12 weeks. This was expected to be a sufficient duration to detect changes in student outcomes as

evidenced by previous home-school note interventions detecting improvement within 4-10 weeks (McCain & Kelley, 1993; McCain & Kelley, 1994). At the end of the study, each participating parent and general education teacher were asked to complete the *Family-School Partnership Lab's Parent* or *Teacher Questionnaires* again to see if their perceived family-school partnership and parental involvement improved (Appendices G and H). Each parent and professional completed a *Post-Intervention Survey* (see Appendices E and F) to evaluate what their opinion of the tool's feasibility and helpfulness was for facilitating cross-systems communication, partnership and data-based decision making. This was necessary for helping each team determine whether or not to continue using the Home-School Log and to determine what could be changed about the log or the procedures (to inform future use in research and practice). Limited prior research has empirically focused on the impact such interventions could have on these specific variables, however it was expected that 10-12 weeks would be sufficient to detect improvements as the participants did not have such a comprehensive tool in place prior to implementation of the log.

Finally, all participants completed the URP-IR to gather information on the social validity and systems support needed to implement the log. Informal conversations with participants were also held towards the end of the school year in order to gather qualitative data on the social validity of the Home-School Log intervention and to determine the sustainability of the intervention (i.e., Did participants continue to use the log? Why or why not?). This could help determine what can be changed about the log or procedures to improve sustainability and inform future use in research and practice.

Data Analyses

Data were entered into password-protected spreadsheets by the primary doctoral student investigator. A second graduate student reviewed a random sample of 20% of the behavioral and survey data to ensure the data were entered accurately. Accuracy scores (e.g., # of correct SDO data entries/total number of SDO data entries checked) ranged from 97-100% accuracy. Studies employing multiple-baseline design are analyzed through visual analysis to evaluate the change in level, trend, and variability from the multiple ratings collected during the baseline phase to that collected during the intervention phase (Riley-Tillman & Burns, 2009). Formative (i.e., progress monitoring) data on student behavioral outcomes were collected daily in the Home-School Log using DBR-SIS. Student outcome data were also collected using SDO probes throughout the study. According to national guidelines on using multiple-baseline designs, having at least three participants allows for sufficient demonstration of effects, however having more students can increase the number of demonstrations of effects (Kratochwill et al., 2010). Also, a minimum of 3-5 data points during each baseline and intervention phase is required to draw conclusions about whether an intervention was effective. The study procedures accounted for at least three SDO data points and at least five DBR-SIS data points on each behavior to be collected during each student's baseline phase, and for five or more SDO and DBR-SIS data points to be collected during each intervention phase. Both DBR-SIS and SDO data were graphed and evaluated visually for change over time and comparisons between students' behavioral data were made to determine prediction, verification, and replication of the treatment effects (Richards, Taylor, Ramasamy, & Richards, 1999; Riley-Tillman & Burns, 2009). Data characteristics such as change in

level, trend, variability, percent of non-overlapping data (PND), and immediacy of effect were evaluated (Richards et al., 1999; Riley-Tillman & Burns, 2009). Effect sizes were calculated using Busk and Serlin's (1992) standard mean difference which compares the difference between the means of the intervention and baseline data points divided by the standard deviation of the baseline data points (i.e., $[M_{Intervention} - M_{Baseline}]/SD_{Baseline}$; Olive & Smith, 2005).

Comparisons between responses on the *Pre-* and *Post-Intervention Surveys* as well as the *Family-School Partnership Lab's Parent* and *Teacher Questionnaires* completed pre and post were made to qualitatively determine whether participants perceived improvements in cross-systems communication, parent involvement, and data-based decision making. Results from the Treatment Integrity Checklist were assessed to determine Home-School Log implementation fidelity. Results from the URP-IR provide information about participants' perceptions of the log's acceptability, understanding, home-school collaboration, feasibility, system climate, and systems support. With such a small sample size, responses on the various survey instruments were analyzed qualitatively for changes in responses from pre to post and to evaluate trends across participants.

Chapter IV: Results

Improvements in cross-systems communication and data-based decision making were evaluated using self-report surveys completed pre- and post-intervention by the adult participants. All five participating parents completed the *Family-School Partnership Lab Parent Questionnaire* (before and after the intervention was implemented) and *Pre- and Post-Intervention Surveys for Parents*. All four participating general education classroom teachers completed the *Family-School Partnership Lab Teacher Questionnaire* (before and after the intervention was implemented). All 11 educator participants, including the four general education classroom teachers, completed the *Pre- and Post-Intervention Surveys for Professionals*. Student outcome data was evaluated via daily educator-collected DBR data and periodic researcher-collected SDO data. Results from these sources follow.

Cross-Systems Communication

Improvement in cross-systems communication and related aspects of cross-systems collaboration/partnership were evaluated using self-report surveys completed by the adult participants pre- and post-intervention. Results of the *Family-School Partnership Lab Parent* and *Teacher Questionnaires* provided a measure of several aspects of cross-systems communication related to parent involvement and whether parent and teacher perceptions towards parent involvement improved after implementation of the intervention. Means between participants' pre- and post- ratings on the *Family-School Partnership Lab* questionnaires were compared to evaluate improvement. Results of the *Pre-* and *Post-Surveys for Parents* and *Professionals* further estimated improvement in cross-systems communication and family-school partnership.

Items from these researcher-developed surveys were not evaluated on a common scale (e.g., some items were on a 4-point scale, while others were on a 6-point scale), thus improvements in ratings were evaluated by examining each participant's ratings on the pre- and post- surveys and determining whether there was slight improvement (i.e., 1-point difference), some improvement (i.e., 2-point difference), or much improvement (e.g., 3+-point difference). Questions relating to cross-systems communication and partnering between parents and out-of-school service providers were excluded as there were no applicable outside service providers for the student participants.

Family-School Partnership Lab Parent Questionnaire. All five participating parents completed the *Family-School Partnership Lab Parent Questionnaire* at pre- and post-intervention. Results of the questionnaire indicate that parents' perceptions of their involvement in their child's education were overall rated positively before and after the intervention. Ratings improved slightly after implementation of the intervention as evidenced by some improvement in mean ratings from pre- to post-intervention (Table 2). Ratings were measured using a 6-point scale where ratings closer to 6.0 are desirable. Overall, ratings on the *Parental Self-Efficacy for Helping the Child Succeed in School* scale were moderately positive at pre- and post- (pre-M=4.2, post-M=4.1). Items on this scale measured parents' beliefs about their ability to help their child receive positive educational outcomes. Items on the *General Invitations for Involvement from the School* scale were rated highly positive at pre- and post- (pre-M=5.6, post-M=5.7). Scores on the *Specific Invitations for Involvement from the Teacher* scale improved slightly from pre- to post- (pre-M=3.7, post-M=4.0).

The *Parental Role Construction for Involvement in the Child's Education* scale measured parents' beliefs about their responsibilities with regard to their child's education. Parents' ratings improved from pre- to post- (pre-M=4.8, post-M=5.2). Parents' ratings remained relatively the same on the *Personal Knowledge and Skills* scale, which measures beliefs about their ability to help their child with homework (pre-M=5.2, post-M=5.3). Parental beliefs about the *Personal Time and Energy* they have to commit to being involved in their child's education were rated positively overall (pre-M=5.3, post-M=5.3). The *Home-Based Involvement Activities* scale provided an estimate of how often interactions between the caregiver and child occur at home. This was also rated positively (pre-M=5.4, post-M=5.6).

Family-School Partnership Lab Teacher Questionnaire. All four participating general education teachers completed the *Family-School Partnership Lab Teacher Questionnaire* at pre- and post-intervention. Results of the questionnaire indicated some improvement in teachers' ratings. However, mean ratings on the majority of scales did not change substantially, although generally items were rated positively (Table 3). Again, ratings were measured using a 6-point scale where ratings closer to 6.0 are desirable. The *Teacher Beliefs about Parental Involvement* scale provided a measure of the extent to which teachers agree or disagree with statements about the importance of parent involvement. Teachers' mean ratings slightly improved from pre- to post-intervention (pre-M=5.0, post-M=5.4). The *Teacher Beliefs about the Importance of Parent Involvement Practices* scale measured teachers' beliefs in the importance of using specific strategies that involve parents. This scale was rated as being important both before and after the intervention (pre-M=5.1, post-M=5.0).

Teacher Beliefs about Parents' Efficacy for Helping Children Succeed in School were also rated positively both before and after the intervention (pre-M=5.2, post-M=5.2). The *Teacher Reports of Parent Involvement* scale provided an estimate of how often parents got involved in their child's education, which remained the same from pre- to post-intervention (pre-M=4.1, post-M=4.0). Teachers indicated that they were pretty confident to completely confident in the accuracy of their estimates regarding parent involvement (i.e., on a scale of 1=completely confident to 4=I am not very confident, Pre Mean=1.8, Post Mean=1.5). The *Teacher Report of Invitations to Parental Involvement* scale provided a measure of how often the teacher provided the parent with specific opportunities to be involved in their child's education. On average, this occurred about once a month both pre- and post-intervention (pre-M=4.0, post-M=4.0).

Pre- and Post-Intervention Surveys for Parents. The *Pre- and Post-Intervention Surveys for Parents* (completed by all five parent participants) contained questions that qualitatively assessed parent perceptions regarding the frequency and quality of cross-systems communication and family-school partnership practices. Overall, parent perceptions improved from pre- to post-intervention. Parental satisfaction with (a) the frequency with which they communicated with the various participating educators, (b) the amount of communication, and (c) the quality of communication all improved. Furthermore, the frequency with which two-way communication occurred for positive reasons, routine matters, and progress updates improved. Parents reported that the two-way communication helped them to work with their child, keep informed about their child's progress, and stimulate communication with their child about things that their child did at school. The promptness with which educators answered parent questions

improved, as did parents' level of comfort in talking with their child's educators. Parents also reported that their working relationship with their child's educators slightly improved, as did the promptness with which difficulties were resolved. In addition, parent perceptions about educators valuing their opinions, treating them like valued team members, and involving them in decisions made about their child's education slightly improved as well.

Pre- and Post-Intervention Survey for Professionals. The *Pre- and Post-Intervention Surveys for Professionals* (completed by 10 educator participants) contained questions that qualitatively assessed educator perceptions regarding cross-systems communication and family-school partnership practices. Overall, there was some improvement in educator perceptions, although the majority of ratings remained relatively the same from pre- to post-intervention. Educators reported improvement in the frequency of two-way communication with parents regarding positive things, routine matters, progress updates, behavioral concerns, and academic concerns. The frequency of data/information sharing with other educators also increased. Educators also reported that when the child has a behavior problem, they could almost always partner with the child's parents to help resolve the issue. In terms of perceptions on whether the Home-School Log helped improve the educators' working relationship with the child's parents, some indicated that the relationship was equally fine before and after using the Home-School Log, whereas others stated that although the relationship was fine prior, it did improve upon using the Home-School Log.

Summary. Results from these various surveys contribute to the first part of the research question pertaining to whether the use of a Home-School Log among educators

and parents of children with an Autism spectrum disorder can improve cross-systems communication as measured by self-report. Interpretation of these results are discussed in Chapter V to determine the extent to which this portion of the research question was answered and how it ultimately related to student outcomes.

Data-Based Decision Making

Permanent product data from the Home-School Log and the Student Progress Evaluation Template indicate that student data were collected almost daily and data were evaluated every 2-3 weeks for all but one student (see Treatment Integrity results below). Improvement in data-based decision making was evaluated using self-report surveys completed by the adult participants (i.e., *Pre-* and *Post-Surveys for Parents* and *Professionals*).

Pre- and Post-Intervention Surveys for Parents. Several items in the *Pre- and Post-Intervention Surveys for Parents* were used to gather information on parental report of data-based decision making practices that occurred before the intervention and during the intervention. All five parents felt more satisfied with how well their child's team communicated and shared information among each team member after the intervention than they reported feeling before onset of the intervention. The parents also felt that their child's educators provided them with enough information to determine whether or not their child was making appropriate progress, more so than they felt prior to the intervention. Additionally, upon completion of the intervention, parents reported that decisions were made about their child's educational programming or services more often and that they were involved in that decision making process more often than they were prior. Parents also reported that collecting information through the Home-School Log

improved their ability to track their child's behavior. Evaluating information in the log also improved the decisions they made regarding their child's behavior.

Pre- and Post-Intervention Survey for Professionals. Information on educator perceptions regarding the occurrence of data-based decision making practices were assessed via responses from the *Pre- and Post-Intervention Survey for Professionals*. Overall, educators reported (and permanent products indicate) that they collected and evaluated data more often during the intervention than they did prior, however in general, educators rated their data-based decision making practices as being highly positive both pre- and post-intervention. All 10 educators reported using data from the log to communicate with parents regarding the child's behavior; 4 additionally used it for informing decisions regarding the child's behavior and 5 also used it to inform the planning and placement team's decisions regarding the child's behavior. Overall, some educators used data from the Home-School Log for early identification of problem behavior daily or weekly (n=4), whereas others used it monthly for this purpose (n=3), and still others did not use the log for this purpose (n=3). Four used the data for identification of specific behavior problems daily or weekly, whereas others (n=5) used it monthly. Four used the data to inform intervention development daily or weekly, while three used the data monthly. Five used the data to monitor response to an intervention daily or weekly, while three used the data for this purpose monthly. Eight used the data daily or weekly to gather parental input about factors that may impact the student, whereas one used it quarterly for this purpose. Seven agreed that collecting data through the log improved their ability to assess the child's behavior. Six agreed that evaluating data from the log improved the decisions they made regarding the child's behavior.

Summary. These results contribute to the second part of the research question pertaining to whether the use of a Home-School Log among educators and parents of children with an Autism spectrum disorder can improve the frequency of data collection, data sharing, and data use to make decisions as measured by self-report. Summary interpretation of these results above are discussed in Chapter V to determine the extent to which this portion of the research question was answered and how it ultimately related to student outcomes.

Student Outcomes

Student outcomes were evaluated using SDO data collected by researchers as well as DBR-SIS data collected by participants. Descriptive statistics, visual analysis, percent of nonoverlapping data (PND) and effect sizes were used to evaluate change in student behavior between phases. SDO data were collected weekly across activities and used as a global probe of student performance to provide a general measure of intervention effectiveness. SDO data are displayed in Table 4 and Figure 1. DBR-SIS data were used as a daily measure of intervention effectiveness within each of the three target activities. Descriptive statistics and visual analysis of the DBR-SIS data across activities are displayed in Tables 5-7 and Figures 2-4. Effectiveness metrics varied by student and activity. Thus, to aid in synthesis of data analyses, heuristics (i.e., common rules of thumb for visually analyzing data) were used to provide qualitative descriptors comparing baseline and intervention DBR-SIS data across all four students and three target activities (see Tables 8-10).

The majority of participants diligently completed the daily DBR-SIS data during each target activity, however one student had a large amount of missing data. Missing

data were defined as ratings that were not made during a pre-specified target activity and for which there was no justifiable reason (justifiable reasons included student absence, teacher absence, schedule changes, etc.). Out of a total of 7-17 baseline days, Students 1, 2 and 4 had no missing data and out of a total of 34-40 intervention days, these same students each had one day during which no DBR-SIS data were collected (e.g., due to parents forgetting to send log to school, educators forgetting to complete ratings). In contrast, out of a total of 14 baseline days, Student 3 had 4 days during which no DBR-SIS data were collected, and out of a total of 34 intervention days, there were 10 days of no DBR-SIS data (due to resource/time constraints; see Treatment Integrity results below for more detail). Furthermore, each student's general education teacher was required to evaluate her participating student's DBR-SIS data from the log using the Student Evaluation Form 3-4 times throughout the intervention phase. Student 3's general education teacher completed it the first time, but was unable to complete it the other three subsequent times. In reviewing the results delineated below, it is important to keep in mind the impact of such missing data for Student 3.

Student 1. Information on Student 1's behavioral outcome is reviewed below via his SDO and DBR-SIS data throughout the study (see Tables 5-10, Figures 1-4).

***Systematic Direct Observation (SDO) Data*.** At pre-baseline, Student 1 displayed Academically Engaged behavior during 71.7% of the observed intervals, and Disruptive Behavior during 33.3%. During baseline, Student 1 displayed Academically Engaged behavior during a mean of 75.2% of the observed intervals (SD=19.13, range 53.3-88.9%). He displayed Disruptive behavior during a mean of 25.2% of observed intervals (SD=13.58, range 13.3-40.0%). Upon implementation of the Home-School Log

intervention, an immediate increase in Academically Engaged behavior and an immediate decrease in Disruptive behavior were observed. During the intervention phase, Student 1 displayed Academically Engaged behavior during a mean of 92.4% of the observed intervals (SD=7.05, range 76.7-100.0%). He displayed Disruptive behavior during a mean of 4.1% of observed intervals (SD=3.19, range 1.7-11.7%). These changes in level resulted in an effect size of 0.90 for Academically Engaged and -1.55 for Disruptive. See Table 4 for a summary of results.

Visual analysis of the SDO data (see Figure 1) supports immediate improvements in level that are maintained throughout the intervention phase as noted by the decreased variability in the data paths from baseline to intervention and the percentage of non-overlapping data (PND; 77.8% for Academically Engaged, 100.0% for Disruptive). It is important to note that data in the baseline phase reveal a strong increasing trend for Academically Engaged while data in the intervention phase reveal a slight increasing trend, which must be taken into account when interpreting intervention effects.

Direct Behavior Rating Single-Item Scale (DBR-SIS) Data. During baseline, Student 1's mean Academically Engaged behavior was rated as 6.2, 7.2, and 6.3 during Activities 1, 2, and 3, respectively. His mean Non-Disruptive behavior was rated as 9.2, 9.6, and 9.3, respectively. Upon implementation of the Home-School Log intervention, ratings indicate an immediate increase in Academically Engaged and Non-Disruptive behavior for Activities 1 and 2. During the intervention phase, Student 1's mean Academically Engaged behavior was rated as 7.3, 8.5, and 8.0, respectively. His mean Non-Disruptive behavior was rated as 10.0, 9.9, and 8.8. These changes in level resulted

in effect sizes of 0.36, 0.39, and 0.56 for Academically Engaged, and 0.62, 0.55, -0.43 for Non-Disruptive.

Visual analysis of Student 1's DBR-SIS data (see Figures 2-4) supports immediate improvements in level during Activities 1 and 2 that are overall maintained during the intervention phase as noted by small to medium positive effect sizes and decreased variability in the data paths from baseline to intervention. Consistency in the data path also improved during Activity 3, however initially there was a slight decrease in level. Improvement in ratings was noted for both behaviors during all activities, with the exception of Non-Disruptive behavior during Activity 3. Additionally, Student 1's Non-Disruptive behavior during Activity 3 had a small, negative effect size and an overall decrease in level. There was much overlap between data points from baseline and intervention, as indicated by PND scores of 0.0%-12.5%. This suggests that the intervention was unreliable at substantially improving ratings for Student 1, however it is likely that the PND scores were influenced by variability in the Non-Disruptive behavior data paths for Activities 1 and 3 (see Figure 1, date 1/26 and Figure 3, date 3/15). See Tables 5-10 for a summary of results.

It is also important to note that DBR-SIS data in the baseline phase reveal a slight increasing trend for Academically Engaged during Activity 1 whereas data in the intervention phase reveal a moderate decreasing trend. Additionally, baseline data for Academically Engaged during Activity 3 reveal a moderate increasing trend, while intervention data reveal a slight increasing trend. Baseline data for Non-Disruptive during Activity 3 reveal a stable trend while intervention data reveal a slight decreasing trend. In contrast, Academically Engaged behavior during Activity 2 and Non-Disruptive behavior

during Activities 1 and 2 indicate desirable changes in trends from baseline to intervention.

Student 2. Information on Student 2's behavioral outcome is also reviewed below via his SDO and DBR-SIS data throughout the study (see Tables 5-10, Figures 1-4).

Systematic Direct Observation (SDO) Data. At pre-baseline, Student 2 displayed Academically Engaged behavior during 73.3% of the observed intervals, and Disruptive Behavior during 25.0%. During baseline, Student 2 displayed Academically Engaged behavior during a mean of 60.3% of the observed intervals (SD=12.04, range 43.3-69.4%). He displayed Disruptive behavior during a mean of 28.3% of observed intervals (SD=5.78, range 23.3-36.7%). Upon implementation of the Home-School Log intervention, an immediate increase in Academically Engaged behavior and an immediate decrease in Disruptive behavior were observed. During the intervention phase, Student 2 displayed Academically Engaged behavior during a mean of 89.5% of the observed intervals (SD=7.28, range 78.3-96.7%). He displayed Disruptive behavior during a mean of 15.6% of observed intervals (SD=12.27, range 5.0-36.7%). These changes in level resulted in an effect size of 2.42 for Academically Engaged and -2.20 for Disruptive. See Table 4 for a summary of results.

Visual analysis of the SDO data (see Figure 1) supports immediate improvements in level that are maintained throughout the intervention phase as noted by the decreased variability in the data paths from baseline to intervention and the percentage of non-overlapping data (PND; 100.0% for Academically Engaged, 83.3% for Disruptive). For Academically Engaged, little to no trend in the data path is indicated in either phase. For

Disruptive, data in the baseline phase indicate a slight decreasing trend, while data in the intervention phase indicate no trend.

Direct Behavior Rating Single-Item Scale (DBR-SIS) Data. During baseline, Student 2's mean Academically Engaged behavior was rated as 8.0, 6.1, and 7.4 during Activities 1, 2, and 3, respectively. His mean Non-Disruptive behavior was rated as 8.2, 8.0, and 7.0, respectively. Upon implementation of the Home-School Log intervention, ratings indicate an immediate increase in Academically Engaged during Activities 1 and 2, and an immediate increase in Non-Disruptive behavior during Activity 1. During the intervention phase, overall mean ratings indicate that both behaviors improved when compared to mean baseline ratings during all three target activities. Student 2's mean Academically Engaged behavior during the intervention phase was rated as 8.9, 7.2, 8.7, respectively, while his mean Non-Disruptive behavior was rated as 8.9, 8.3, and 8.7. These improvements in level resulted in effect sizes of 0.50, 0.52, and 0.67 for Academically Engaged, and 0.33, 0.37, 0.98 for Non-Disruptive.

Visual analysis of Student 2's DBR-SIS data (see Figures 2-4) support overall improvements in ratings as noted by small to large positive effect sizes and decreased variability in the data paths from baseline to intervention (except for Non-Disruptive behavior during Activity 2, which had an increase in variability). As with Student 1, there was much overlap between Student 2's data points from baseline and intervention, as indicated by PND scores of 0.0%-37.5%. However, Student 2's Non-Disruptive behavior during Activity 3 had 70.4% non-overlapping data between phases; PND criteria indicate that interventions with 70-90% non-overlapping data can be deemed "fairly effective." It is important to note that all DBR-SIS data in the baseline phase reveal stable trends or

increasing trends, whereas data in the intervention phase predominantly reveal slight increasing trends. Only Academically Engaged behavior during Activity 3 suggested a slight decreasing trend, despite the overall improvements in all mean ratings between phases. See Tables 5-10 for a summary of results.

Student 3. Information on Student 3's behavioral outcome is summarized below via her SDO and DBR-SIS data throughout the study (see Tables 5-10, Figures 1-4).

Systematic Direct Observation (SDO) Data. At pre-baseline, Student 3 displayed Academically Engaged behavior during 88.3% of the observed intervals, and Disruptive Behavior during 28.3%. During baseline, Student 3 displayed Academically Engaged behavior during a mean of 78.3% of the observed intervals (SD=11.14, range 66.3-88.3%). She displayed Disruptive behavior during a mean of 24.2% of observed intervals (SD=15.06, range 6.7-38.3%). During the intervention phase, Student 3 displayed Academically Engaged behavior during a mean of 75.7% of the observed intervals (SD=11.58, range 60.0-91.7%). She displayed Disruptive behavior during a mean of 25.0% of observed intervals (SD=17.40, range 6.7-46.7%). These changes in level resulted in an effect size of -0.24 for Academically Engaged and 0.06 for Disruptive. See Table 4 for a summary of results.

Visual analysis of the data (see Figure 1) indicates that upon implementation of the Home-School Log intervention, an immediate decrease in Academically Engaged behavior and an immediate increase in Disruptive behavior were observed. Subsequently, little change in level, trend, or variability were observed between phases for Academically Engaged or Disruptive. Except that during the baseline phase, a slight increasing trend in Disruptive behavior was observed, while a moderate decreasing trend

was observed during the intervention phase. The percentage of non-overlapping data was insignificant (20.0% for Academically Engaged and 0.0% for Disruptive).

Direct Behavior Rating Single-Item Scale (DBR-SIS) Data. During baseline, Student 3's mean Academically Engaged behavior was rated as 9.0, 6.7, and 9.3 during Activities 1, 2, and 3, respectively. Her mean Non-Disruptive behavior was rated as 8.7, 4.2, and 9.3, respectively. Upon implementation of the Home-School Log intervention, ratings indicate an immediate increase in Academically Engaged and Non-Disruptive behavior for Activities 2 and 3, but an immediate decrease during Activity 1. During the intervention phase, Student 3's mean Academically Engaged behavior was rated as 8.8, 8.7, and 9.5, respectively. Her mean Non-Disruptive behavior was rated as 8.2, 8.4, and 9.1. These changes in level resulted in effect sizes of -0.24, 1.46, and 0.34 for Academically Engaged, and -0.36, 1.47, -0.34 for Non-Disruptive.

Visual analysis of Student 3's DBR-SIS data (see Figures 2-4) supports immediate improvements in level during Activities 2 and 3. For Activity 2, these improvements were overall maintained throughout the intervention phase as noted by large positive effect sizes despite one date where Student 3's behavior declined (see Figure 3, date 2/27). There was an overall decrease in level during Activity 1, as well as a decrease in Non-Disruptive ratings during Activity 3 (further evidenced by small negative effect sizes). Additionally, overall consistency in the data paths declined during the intervention phase. As with Students 1 and 2, there was much overlap between data points from baseline and intervention, as indicated by PND scores of 0.0%-42.9%. In terms of trends between phases, both behaviors during Activity 1 revealed baseline ratings with increasing trends, and the trends were maintained during the intervention

phase. Activity 2 also had increasing trends during baseline, however the ratings produced decreasing trends during the intervention phase. In contrast, ratings during Activity 3 were stable during baseline and produced an increasing trend during the intervention phase. It is important to remember that there was much missing data for Student 3 (e.g., days that the Home-School Log was not completed, thus no ratings exist), which may have impacted the results. See Tables 5-10 for a summary of results.

Student 4. Information on Student 4's behavioral outcome is summarized below via his SDO and DBR-SIS data throughout the study (also see Tables 5-10, Figures 1-4).

Systematic Direct Observation (SDO) Data. At pre-baseline, Student 4 displayed Academically Engaged behavior during 78.3% of the observed intervals, and Disruptive Behavior during 43.3%. During baseline, Student 4 displayed Academically Engaged behavior during a mean of 81.7% of the observed intervals (SD=10.99, range 71.7-100.0%). He displayed Disruptive behavior during a mean of 25.3% of observed intervals (SD=8.28, range 15.0-36.7%). During the intervention phase, Student 4 displayed Academically Engaged behavior during a mean of 92.5% of the observed intervals (SD=6.39, range 83.3-98.3%). He displayed Disruptive behavior during a mean of 16.9% of observed intervals (SD=15.61, range 3.3-43.3%). These changes in level resulted in an effect size of 0.99 for Academically Engaged and -1.01 for Disruptive. See Table 4 for a summary of results.

Visual analysis of the data (see Figure 1) indicates that upon implementation of the Home-School Log intervention, an immediate decrease in Academically Engaged behavior and an immediate increase in Disruptive behavior were observed. Subsequently, however, improvements in level, trend, and variability were observed for both behaviors.

Although upon implementation of the intervention, Student 4 initially displayed more variable Disruptive behavior, during the latter portion of the intervention phase he consistently displayed a low level of disruptive behavior resulting in a moderate decreasing trend. The percentage of non-overlapping data was not significant (0.0% for Academically Engaged, 66.7% for Disruptive).

***Direct Behavior Rating Single-Item Scale (DBR-SIS) Data*.** During baseline, Student 4's mean Academically Engaged behavior was rated as 6.5, 7.4, and 7.8 during Activities 1, 2, and 3, respectively. His mean Non-Disruptive behavior was rated as 9.3, 8.9, and 8.0, respectively. During the intervention phase, overall mean ratings indicate that both behaviors improved when compared to mean baseline ratings during all three target activities. Student 4's mean Academically Engaged behavior during the intervention phase was rated as 8.1, 7.9, 8.6, respectively, whereas his mean Non-Disruptive behavior was rated as 9.5, 9.3, and 9.1. These improvements in level resulted in small to large positive effect sizes of 0.72, 0.29, and 0.67 for Academically Engaged, and 0.22, 0.26, 0.85 for Non-Disruptive.

Visual analysis of Student 4's DBR-SIS data (see Figures 2-4) also supports overall improvements in ratings, although little to no change was observed immediately upon implementation of the intervention. Overall consistency in the data paths declined from baseline to intervention phases for Academically Engaged behavior. For Non-Disruptive behavior, consistency declined during Activity 1, but improved during Activities 2 and 3. As with the other student participants, there was much overlap between Student 4's data points from baseline and intervention, as indicated by PND scores of 0.0%-20.7%. It is important to note that all DBR-SIS data paths in the baseline

phase reveal slight to moderate increasing trends, whereas data in the intervention phase reveal slight to strong increasing trends. See Tables 5-10 for a summary of results.

Summary. Results from these SDO and DBR-SIS data contribute to the final part of the research question pertaining to whether the use of a Home-School Log with a focus on cross-systems communication and data-based decision making can ultimately improve student behavioral outcomes. Summary interpretation of results are discussed in Chapter V to determine the extent to which this data supported the hypothesis that student outcomes would improve as a result of consistent, daily use of the log.

Treatment Integrity

The extent to which the intervention was implemented as planned was assessed using the Treatment Integrity Checklist (Appendix M). Overall, Student 1's educators and parents implemented the intervention with 86.3% integrity, Student 2's with 90.7% integrity, Student 3's with 47.1% integrity, and Student 4's with 91.3% integrity (see Table 11). In general, items that were consistently more difficult for educators to complete included remembering at the end of the school day to complete the "Ask your child about ____" and/or "Suggested Activity" portions of the Home Activity page (i.e., Student 1=87.8%, Student 2=91.9%, Student 3=0%, and Student 4=65.7%). Additionally, Student 2's special education teacher sometimes forgot to complete her ratings for Activity 2 and 3, particularly when the student did not arrive to her classroom with the Home-School Log in hand (i.e., completed ratings for Activity 2 for 73.5% of the days during the intervention phase, and 80.0% for Activity 3). Student 3's general education teacher had much difficulty remembering to complete the ratings and send the log home, primarily due to the severity of the student's behaviors. Thus, on days that she did not

complete the ratings (i.e., 33.3% of the days during the intervention phase), she reverted to email communication with Student 3's parents. Specifically, often ratings were not completed in the afternoon (i.e., only completed 42.9% of the time), the "Ask your child about ____" and "Suggested Activity" portions of the Home Activity page were never completed, and the Student Progress Evaluation Template was only completed once out of four opportunities. Parent implementation of the intervention was generally high, although Student 1's parent sometimes forgot to initial the Daily Rating page (i.e., completed 78.0% of the time) and completed the Setting Events checklist 82.9% of the time (particularly would forget to complete after the weekend). Student 4's parents provided comments 82.9% of the time. Student 3's teacher only gave her the Home-School Log to bring home during 51.4% of the days, however for days that the parents were able to complete the Home Activity page, parent implementation integrity was 100%.

Usability

Upon completion of the intervention phase, adult participants were administered the *Usage Rating Profile – Intervention Revised* (URP-IR) to evaluate the *usability* of the intervention (Chafouleas, Briesch, Neugebauer, & Riley-Tillman, 2011; see Appendix N). Of the 16 adult participants, 15 completed the survey (Student 3's parent did not return the survey). Mean scores across the six domains evaluated by the URP-IR (1=strongly disagree, 6=strongly agree) are displayed in Table 12. Overall, respondents rated the intervention positively on all six domains. Parents (n=4) highly rated items pertaining to their *understanding* of the intervention (M=5.6, SD=0.50) and their perceptions about the intervention's *feasibility* (M=5.4, 0.66). Not surprisingly, the *home-*

school collaborative nature of the intervention was also rated highly (M=5.1, SD=0.83). They slightly agreed with items pertaining to the *acceptability* of the intervention (M=4.9, SD=0.47). Items pertaining to the intervention's fit within the schools' *system climate* and the *system support* required to implement the intervention did not apply to parents and thus were omitted.

Overall, educators (n=11) highly rated items pertaining to their *understanding* of the intervention (M=5.3, SD=0.53) and the *home-school collaborative* nature of the intervention (M=5.6, SD=0.52). Items pertaining to their perceptions about the intervention's *acceptability* (M=4.8, SD=0.81) and *feasibility* (M=4.6, 0.93) received moderate scores. They slightly to moderately agreed with items stating that the intervention aligned with the schools' *system climate* (M=4.9, SD=0.89). Educators tended to slightly to moderately disagree with items pertaining to the *system support* required to implement the intervention (M=2.4, SD=1.04). Keep in mind that scores closer to 1.0 are desirable for the *system support* domain, as they reflect the respondents having greater confidence in their ability to implement the intervention independently without additional support. See Table 12 for a breakdown of mean ratings by educator role (i.e., general education teachers, special education teachers, related service providers, paraprofessionals). "Related service providers" included a school psychologist, speech/language pathologist, and occupational therapist.

Some items were rated more negatively than others. For example, some felt that they would need additional resources to carry out this intervention, such as consultative support and/or someone to assist with preparation of materials. Others felt confident in their ability to carry out the intervention with the resources they already had.

Additionally, two participants felt that they would not be interested in implementing this intervention again. For example, Student 2's speech/language pathologist felt that the log was not as meaningful as another home-school communication method she was already using that was more specific to the student's progress towards IEP goals related to speech. Student 3's general education teacher felt it was not useful enough for addressing Student 3's needs. Overall, however, the majority of participants positively rated the intervention's usability.

Usability was also assessed via the *Post-Intervention Surveys for Parents* and *Professionals*. Nine out of ten educators positively rated their overall satisfaction with the experience of using the Home-School Log. All agreed that it was easy to implement and all had used other methods to track student behavior before (e.g., ABC data sheets, behavior charts, communication notebook). Compared to other methods of tracking student behavior, 6 educators reported that the log was somewhat easier to use, whereas 4 reported that it was somewhat difficult to use. However, 7 reported that the log was more useful than the other methods, primarily because of the parent involvement component. As for parent report on the usability of the log, overall, all five parents were satisfied with use of the log and all felt it was easy to use daily. All five had used other methods to communicate with educators (e.g., notebook, daily notes, email). Compared to these other methods, four felt the log was easier to use, whereas one felt it was somewhat more difficult to use. All felt that the log was more useful than other methods they have used to communicate with educators.

Chapter V: Discussion

Overall, results indicate small to moderate improvement in participants' perceptions of cross-systems communication and data-based decision making practices, as well as an increase in the frequency of data collection, data sharing, and data use to make decisions. Improvements in positive student behavioral outcomes across students during implementation of the home-school log intervention were weak to moderate overall (as well as somewhat contraindicated for Student 3). Discussion of these results across the three major areas assessed (i.e., cross-systems communication, data-based decision making, and student outcomes) follows.

Cross-Systems Communication

First, it is important to note that the cross-*systems* nature of the intervention was lost in that for the particular students enrolled in this study, only the home and school settings were relevant to include (i.e., these students did not have community service providers in need of frequent data sharing). Thus, thinking of the intervention as targeting cross-*settings* or cross-*context* communication may be more appropriate.

Results of parents' ratings on the *Family-School Partnership Lab Parent Questionnaire* were generally positive at both pre- and post-intervention (thus ceiling effects may be a concern). Only certain scales showed some improvement though not significant (i.e., *Specific Invitations for Involvement from Teacher, Parental Role Construction for Involvement in the Child's Education,* and *Home-based Involvement Activities*), whereas results from the other scales remained relatively the same from pre- and post-intervention (e.g., *Parental Self-Efficacy for Helping Child Succeed*, *Personal Knowledge and Skills, Personal Time and Energy*). This is not surprising, as

improvement in those other scales was not *specifically* targeted by the intervention, but it is interesting to note that use of the log did not demonstrate a carryover effect for those scales. For example, use of the log did not inadvertently result in improvement in parents' perceptions for helping their child with homework. Also, involvement from each school as a whole was not targeted in this study, thus the *General Invitations for Involvement from the School* scale did not improve.

Similarly, the general education teachers' ratings on the *Family-School Partnership Lab Teacher Questionnaire* were also generally positive at both pre- and post-intervention. Only the *Teacher Beliefs about Parental Involvement* scale demonstrated some improvement from pre- to post-intervention. Teacher perceptions on the other scales remained the same – those scales were again not necessarily specifically targeted by the Home-School Log intervention and did not have a carryover affect. Thus, *Teacher Beliefs About Parental Involvement Practices* and *Parent's Efficacy for Helping Children Succeed in School* remained the same from pre- to post-intervention, as did *Teacher Reports of Parental Involvement and Specific Invitations for Parents to Get Involved*.

In contrast, the *Pre- and Post-Intervention Surveys for Parents and Professionals* were specifically designed to assess aspects of cross-systems communication that were targeted for improvement through use of the Home-School Log as well as aspects for which the log was more generally intended to have a carryover effect. Overall, results from the *Pre- and Post-Intervention Surveys for Parents* indicate that parent perceptions towards cross-systems communication and family-school partnership improved, as did parental report of the frequency and quality of two-way communication. Particularly,

parents noted that the two-way communication helped them to work with their child, keep informed about their child's progress, and stimulate communication with their child about things that their child did at school. Parents also felt that the promptness with which educators answered their questions improved, as did parents' level of comfort in talking with their child's educators. Participating parents also reported improvement in their working relationship with their child's educators, and the promptness with which difficulties were resolved. Additional improvements were noted in parent perceptions about educators valuing their opinions, treating them like valued team members, and involving them in decisions made about their child's education.

When completing the *Pre- and Post-Intervention Surveys for Professionals*, all participating educators rated cross-systems communication relatively positively at both pre- and post-intervention. Some improvements in ratings were noted on the post-intervention survey, but the majority of ratings were relatively equivalent from pre- to post-intervention. Specifically, respondents reported improvements in the frequency of data/information sharing with other educators as well as the frequency of two-way communication with parents regarding positive things, routine matters, progress updates, behavioral concerns, and academic concerns. Some educators also reported that their overall relationship with parents improved after using the log.

Overall participating parents' and educators' perceptions of various aspects relating to cross-systems communication did improve, although more so for parents than for educators. Anecdotally, educators reported that their perceptions about communication as well as their reflections on the quality of their own communication with parents were strong at both pre- and post-intervention. This is not surprising given

that all of the educators were willing to participate in this study, which indicates that they likely already had positive beliefs about cross-systems communication and also already believed daily communication with parents would be beneficial. Overall improvement in cross-systems communication was naturally targeted by the Home-School Log intervention and to this end it was a success. However, communication was just the most basic function of the log. It was also intended to result in improvements to data-based decision making practices.

DataBased Decision Making

To target improvement in data-based decision making practices, formative assessment was used in the log through quantitative ratings completed by educators throughout each school day using DBR-SIS. This type of structured formative assessment (i.e., frequently collected and quantitatively measured, rather than basing progress on informal judgment) allows for adjustments/modifications to be made to student programming in response to early and frequent feedback. This can dramatically improve long-term outcomes (Dorn, 2010). Thus, behavioral data were collected in the home-school log daily and were evaluated using the Student Progress Evaluation Template every 2-3 weeks. These were an improvement from pre-study data collection and evaluation practices. Prior to the study, behavioral data were not collected systematically for Students 1, 2, and 4. For Student 3, positive behavioral data were collected daily through a sticker chart that was sent home and linked to a long-term home goal (that the student had not yet achieved); however, the data were not graphed and evaluated systematically to inform behavior management decisions.

On the *Pre-* and *Post-Intervention Surveys for Parents*, participating parents reported feeling more satisfied with how well their child's team communicated and shared information among each team member at post- than at pre-intervention. At post-intervention, parents reported feeling that their child's educators gave them enough information about their child's progress in school. Parents also reported improvements in decisions about their child's educational programming and in their perception of their own involvement in the decision making process at post-intervention. Furthermore, parents enjoyed that the log helped them track their child's behavior and improved decisions they made regarding their child's behavior.

On the *Pre-* and *Post-Intervention Surveys for Professionals*, educators rated their own data-based decision making practices for the target students highly at both pre- and post-intervention. However, generally the educators reported collecting and evaluating data more often during the Home-School Log intervention than prior. On the *Post-Intervention Survey for Professionals*, educators reported having used the log for a variety of purposes including (a) to communicate with parents regarding the child's behavior, (b) for informing decisions regarding the child's behavior, and (c) to inform the planning and placement team's decisions regarding the child's behavior. Additionally, various educators reported using information gathered from the log on a daily, weekly, or monthly basis to (a) identify specific behavior problems, (b) inform intervention development, (c) monitor response to an intervention, and (d) gather parental input about factors that may impact the student. Furthermore, of the 10 participating educators, 7 reported that collecting data through the log improved their ability to assess the student's behavior. Six reported that evaluating data from the log improved the decisions they

made regarding the child's behavior. The others (three of the related service providers as well as Student 3's general education teacher) were neutral on these aspects or slightly disagreed, because they felt that they were able to assess and/or make decisions regarding the student's behavior without the need for data collection through the log.

Consistent with literature indicating that the process of data collection in itself can enact change in educational practices (e.g., Fuchs & Fuchs, 1986), data tracking itself proved to result in modifying student supports for at least one educator. When rating Student 1's behavior in the log, the team decided that in addition to wanting an overall rating about the student's Academically Engaged behavior, they would like to keep a tally of the number of times Student 1 needed to be prompted to pay attention. In simply beginning to track the data, Student 1's 1:1 paraprofessional realized how much she may have been overly prompting him to attend; she then modified her practices to help increase his independence. This was a simple case of data-based decision making that occurred without the need for systematic evaluation through the Student Progress Evaluation form every 2-3 weeks. It is unclear how often situations like this happened incidentally for the other students. In conversations between the researcher and participating educators that occurred after the study, it appears that minor incidental changes in practices (such as providing fewer verbal prompts and more wait time) were not always recognized by participants as "modifications to supports" or "data-based decision making practices," and thus were not documented by educators as such. Furthermore, incidental changes such as these may be person-specific and not lead to long-term change if not formalized in educational support plans, so that all individuals are consistently implementing such practices.

In terms of the integrity with which the log was implemented, the majority of the participants completed the integral steps of the intervention consistently (e.g., completing the ratings daily at the pre-specified times, sending the log home daily, completing the Student Progress Evaluation Template every 2-3 weeks). Anecdotally, the Home-School Log somewhat acted as its own accountability measure – for some educators it was hard to remember to do the ratings during the baseline phase (when the data were not being shared amongst participating educators and parents), but during the intervention phase, there was much less missing data. This was likely due to the fact that the educators felt an obligation to ensure the ratings were completed, because parents would be looking for the pre-specified information in the log each day (some parents even inquired when certain sections were not completed). Student 3's general education teacher was the only one who had difficulty implementing the log consistently (resulting in much missing data). Most days, she compensated by emailing comments to the parents about Student 3's day. Overall, participants felt positively about the log's ability to facilitate data-based decision making practices, and the log resulted in more frequent data collection and data sharing for most of the participating educators and parents.

Student Outcomes

Results indicate that the Home-School Log intervention improved perceptions of and frequency of cross-systems communication and data-based decision making practices. However, the ultimate goal of such practices was to improve student outcomes based on the behavioral targets of Academically Engaged and Non-Disruptive behavior during Morning, Math, and Language Arts/Science activities. SDO was used as a weekly probe of student performance across activities and thus can be considered a global student

outcome measure that is generally linked to intervention effectiveness. Daily DBR-SIS data collected by educators using the Home-School Log was used as a more comprehensive, frequently-collected measure of student performance within each specified activity.

Student 1. For Student 1, SDO data indicate immediate improvements in level upon implementation of the intervention and large positive effects that were maintained throughout the intervention. Overall, Student 1's Academically Engaged behavior increased by 17% and Disruptive behavior decreased by 21%. PND was fairly high, thus the intervention can be deemed *somewhat effective* at improving Student 1's Academically Engaged behavior, and *highly effective* at improving his Disruptive Behavior (Scruggs & Mastropieri, 1998). However, it is important to note that visual analysis of the data indicate a strong increasing trend during baseline, but a slight increasing trend during the intervention.

Student 1's DBR-SIS data indicate overall immediate improvements in Academically Engaged and Non-Disruptive behaviors from baseline to intervention. Overall, small to medium positive effect sizes were noted as well as improved consistency in the behavioral data paths. Visual analysis indicated some desirable changes in trend from baseline to intervention (i.e., stable trend to slight increasing trend) and some undesirable change in trend (e.g., from stable to slight decreasing trend). Additionally, Non-Disruptive behavior decreased slightly (.5 points) from baseline to intervention during Activity 3 resulting in an immediate slight decrease in level and an overall small negative effect size. Also, there was much overlap in the data between phases, thus PND criteria suggest that the log was *unreliable* at improving student

behavior; this may have been due to outliers in Student 1's data during the intervention phase. Overall, Student 1's Academically Engaged and Non-Disruptive behaviors improved from baseline to intervention across data sources.

Student 2. For Student 2, SDO data indicate immediate improvements in level that were maintained throughout the intervention phase, resulting in large positive effect sizes. Overall, Student 1's mean Academically Engaged behavior increased by 29% and mean Disruptive behavior decreased by 12%. Little overlap in data between phases resulted in PND values that indicate the intervention was *highly effective* for improving Student 2's Academically Engaged behavior and *fairly effective* for improving his Disruptive behavior. Visual analysis indicates that trends in the data paths between phases provide support that Academically Engaged behavior improved due to implementation of the intervention (stable trends for Academically Engaged behavior during baseline and intervention); for Disruptive behavior, there was a slight decreasing trend during baseline and a stable trend during the intervention phase.

Student 2's DBR data indicate that overall, Academically Engaged and Non-Disruptive behaviors improved from baseline to intervention, garnering small to large positive effect sizes across activities. Upon implementation of the log, his Academically Engaged behavior immediately increased in level during Activities 1 and 2, but immediately decreased during Activity 3. His Non-Disruptive behavior immediately increased during Activity 1, but there was no immediate change during Activities 2 and 3. Overall, during the intervention phase there was improved consistency in the data paths across target behaviors and activities, as well as desirable changes in trend from baseline to intervention (i.e., stable trend to slight increasing trend). There was much overlap in

the data between phases, so PND criteria suggest that the log was *unreliable* at improving behavior. However, for Non-Disruptive behavior during Activity 3, there was little overlap, indicating the log was *fairly effective* at improving Non-Disruptive behavior. In general, Student 2's Academically Engaged and Non-Disruptive behaviors also improved from baseline to intervention across data sources.

Student 3. Student 3's SDO data indicate that her behavior initially worsened upon implementation of the log. By the end of the study, her mean Academically Engaged behavior decreased by 2.6% from baseline to intervention resulting in a small negative effect size. There was no significant overall change in her Disruptive behavior between phases (effect size close to 0). There was also a very low PND, indicating that the log was generally *unreliable* for improving Student 3's behavior across observations. Also, her Academically Engaged behavioral data demonstrated little change in trend between phases, although her Disruptive behavioral data displayed a desirable change in trend (i.e., a slight increasing trend at baseline and slight decreasing trend at intervention).

Overall, Student 3's DBR-SIS data indicate some positive and some negative effects on her Academically Engaged and Non-Disruptive behaviors from baseline to intervention. Her behavior during Activity 2 demonstrated large positive effects, but data indicate small negative effects during Activity 1. During Activity 3, her Academically Engaged behavior garnered a small positive effect, but a small negative effect was indicated for her Non-Disruptive behavior. Visual analysis indicate that there were immediate improvements in her behavior levels during Activities 2 and 3, however overall consistency in the data paths declined from baseline to intervention (i.e., behavioral data became more variable during intervention phase). There were desirable

changes in trend from baseline to intervention for Activity 3, but not for Activities 1 and 2 (e.g., moderate increasing trend across phases) and some undesirable change in trend (e.g., from moderate increasing trend to slight decreasing trend). There was also much overlap in data between phases, thus PND criteria suggest the intervention was *unreliable* at improving Student 3's behavior.

In general, the Home-School Log intervention did not consistently result in improvements in Student 3's behavior. Student 3's general education teacher had difficulty consistently using the Home-School Log as planned and frequently did not send it home, thus the low treatment integrity may have contributed to the contraindicated effects during the intervention phase. However, it is also possible that the severity of Student 3's behavior made it more difficult to conduct the Home-School Log intervention. In a response to intervention (RTI) framework, the Home-School Log can be categorized as a Tier II positive behavioral intervention due to (a) its positively-stated behaviors, (b) it being prescribed for a small group of students who meet general behavioral criteria, (c) its indirect nature (i.e., indirectly linked to improving student outcomes), and (d) the amount of time needed to implement (Brown-Chidsey, Bronaugh, & McGraw, 2009). During the course of the study, Student 3's disruptive behaviors (e.g., whining, crying, picking at her skin and hair) escalated to a point where Tier II behavioral supports were deemed by her team to be insufficient at addressing her behavior. Data from the Home-School Log provided support for this decision. Input from a behavioral consultant was garnered in order to conduct a functional behavioral assessment (FBA) about Student 3's behaviors and design a Tier III function-based behavior intervention plan (BIP; Crone & Horner, 2003). Although the Home-School Log was insufficient for addressing Student

3's behaviors, the behavioral consultant found the data from the log useful during her assessment – she was able to use the data to support her assessment, and thus was able to complete the assessment and create the intervention plan in a much quicker timeframe than anticipated. Thus, the Home-School Log helped to expedite the process and resulted in less wasted time for determining how to address Student 3's behaviors.

Student 4. Student 4's SDO data indicated an initial decrease in Academically Engaged behavior and increase in Disruptive behavior, but then improvements were observed, resulting in overall large effect sizes. Student 4's mean Academically Engaged behavior increased by 11% and his mean Disruptive behavior decreased by 8%. Somewhat low PND scores indicate that the log was *unreliable* at improving Academically Engaged behavior, and had *questionable effectiveness* for improving Disruptive behavior. However, improvements in level, trend, and variability were noted between phases.

Student 4's DBR-SIS data also indicate that his Academically Engaged and Non-Disruptive behaviors initially demonstrated little to no change immediately upon implementation of the intervention. However, his behavior did improve from baseline to intervention, garnering small to large positive effect sizes across behaviors and activities. The overall consistency in data paths between phases declined for Academically Engaged. Consistency also declined for Non-Disruptive behavior during Activity 1, but improved during the intervention phase for Activities 2 and 3. Desirable changes in trends between phases were noted - slight to moderate increasing trends during baseline and slight to strong increasing trends during intervention. Visual analysis indicates much overlap in data between phases, so PND scores suggest that the intervention was *unreliable* at

improving Student 4's behavior. However, overall, Student 4's behavior improved during the intervention phase across measures.

Summary. Individually, Student 1, 2, and 4's Academically Engaged and Non-Disruptive behaviors generally improved during implementation of the Home-School Log intervention. Student 3's behavior did not improve during implementation, however use of the log did provide support for her team's decision to further assess her behavior and expedited the process of creating an individualized, function-based Tier III intervention. Kratochwill et al. (2010) provide guidance for evaluating intervention effectiveness in studies utilizing single case design (e.g., multiple baseline designs). Overall, data between phases documented basic effects (i.e., improvements in level). However, baseline data did not always document a predictable pattern – in some cases, data were stable at baseline or were showing a trend in the undesirable direction. In several cases, however, data paths indicated slight to strong increasing trends at baseline. It was difficult to wait for all data to demonstrate stability at baseline prior to implementation of the intervention phase, due to the number of behaviors, activities, and measures used (resulting in 8 distinct data paths per student). Thus, not all data had reached stability during the baseline phase prior to implementation of the log. Additionally, SDO data demonstrated stronger effects than DBR-SIS data. However SDO data was more limited in that it is only a reflection of the students' behaviors 1-2 times per week for each student while DBR-SIS data provides more detailed information about the student's daily progress by activity. This is an important consideration for users who would prefer to use just one measure; each has their benefits and weaknesses, but different conclusions might be made from each, thus it may be beneficial to utilize both

methods in order to obtain data from multiple sources (e.g., both teachers and support staff or external consultants).

Generally, data within the intervention phase did allow for documentation of predictable patterns, particularly as consistency tended to increase during the intervention phase. Ideally, data across phases in a multiple baseline design would not improve until the intervention is implemented, thus documenting a level of experimental control. Overall, immediate positive effects were indicated by the majority of the students' data, however no immediate changes were indicated for Student 4's data. Due to some inconsistencies in student responsiveness to the intervention across activities and behaviors, variability of data at baseline, and immediacy of effect on behavioral data, functional relationships between student behavior and the Home-School Log intervention were weak to moderate.

Further Interpretations and Implications for Practice

Formative Decision Making. Overall, cross-systems communication, data-based decision making, and student outcomes improved, however student outcomes were not as strong as anticipated. There may be several reasons for this, particularly the lack of specific guidance surrounding what decisions educators should make after evaluating each student's data. The use of formative assessment via DBR-SIS data collected in the Home-School Log afforded the ability to make ongoing adjustments to student supports that are informed by concrete data. Daly et al. (2010) describe a process for utilizing formative data to evaluate intervention effectiveness for individual students, with the initial step being to determine whether there was an effect. For each student's target behavior during each activity, the student's classroom teacher determined the presence of

an effect through completion of the Student Progress Evaluation Template. The ultimate step is to determine what should be done next for the student.

Formative decision making (i.e., making program decisions based on formative data) can be conducted as an *independent inductive loop*, in which teachers have freedom over how to respond to the data, or teachers can receive *explicit guidance* throughout the decision making process (Dorn, 2010). In some areas, formative assessment can be tied to guidance about intervention, as it often is, for example, when utilizing curriculum-based measurement (CBM) for tracking reading fluency. If the formative CBM data indicates that the student's *reading fluency* is not progressing at a rate typical for his grade level, the student may benefit from specific research-based strategies for improving *reading fluency* (e.g., repeated readings; Herman, 1985). In this example, utilizing the *independent inductive loop* process of formative decision making may be sufficient.

The formative decision making process used in this study was more the *independent inductive loop* process, however, guidance for how to address behavioral concerns is usually not as apparent or not as easily linked to the data as it is for areas such as *reading fluency*. Typically, behavioral data merely tells you whether what you are doing is adequately working (in which case, continue supports or work towards independence by fading the intervention). However, what to do if current supports are not adequately improving a problem behavior is not as easy as searching for interventions for reducing that problem behavior. Determining the best intervention usually requires a process of identifying (a) environmental factors, (b) potential functions of the behaviors, and (c) interventions that are function-based, then continuing to evaluate progress (Crone & Horner, 2003).

In the current study, teachers were provided with some assistance in the form of the Student Progress Evaluation Template to guide the teachers through each step of evaluating the data from the Home-School Log. However, it fell short of what they should do based on the data. The bottom of the Student Progress Evaluation Template, after they had completed their evaluation of the data in each graph, had a spot for the teachers to check off either (a) "Make no change in supports (continue to monitor, make no change at this time)" or (b) "Recommended change in supports (e.g., change goal, rewards):_____." Throughout the intervention, the teachers all chose "Make no changes in supports." With the exception of Student 3's teacher, who only completed the first Student Progress Evaluation Template but worked with a behavioral consultant to implement additional strategies, the other teachers appeared to have chosen the "make no changes" option, regardless of the data evaluation.

When informally speaking with participants after the study, it became clear that there were so many graphs to individually visually analyze that how to synthesize the data and determine whether anything should change was too daunting a process for the teachers to conduct well independently. They also seemed to be unclear about the process of "making changes in supports." For students receiving special education services, they were used to having a formal planning and placement team meeting to make decisions about educational programming; they were viewing decisions about behavioral supports as having to go through a similar process, and so they only documented changes if modifications to a formal behavior plan were made. They did not document other more minor strategies that they tried, such as reviewing expectations prior to target activity, or sticking Velcro under student's desk for him to occupy his hands as an alternative

behavior to engaging in motor tics. These were valid strategies that one would want to document to see if there was an effect when evaluating behavioral data, but during the study the participants did not document these "incidental" strategies.

In hindsight, the teachers may have benefitted from more *explicit guidance* during the formative decision making process (Dorn, 2010). A list of possible antecedent, teaching, and consequence strategies would have been beneficial for providing some standardization to the type of guidance given to each teacher. This was outside the scope of the current study, however, since the purpose was to see if use of the Home-School Log would indirectly provide the impetus for educators to use a process for making data-based decisions about how to manage student behavior. Results from the current study indicate that educators may need more guidance during this process, particularly since they may not be aware of the various kinds of strategies to try and what to document. As Crimmins and Farrell (2006) stated, the majority of school personnel continue to lack the expertise needed to provide more individualized positive behavioral support services to students.

School psychologists are often trained to assess, plan, implement, and evaluate behavioral interventions, indicating that they may be in the best position to provide the explicit guidance that educators and families need when evaluating student data (Kratochwill, 2008). For general education teachers, synthesizing intervention effects over 3+ activities per student may have been unfeasible, particularly when baseline data were so variable. Vanselow, Thompson, and Karsina (2011) found that even behavioral experts tended to differ on how long the baseline phase should be before implementing the intervention phase when baseline data were more variable, and that was when

targeting one behavior during one activity. Perhaps focusing initial data collection around tracking less behaviors or activities (i.e., only the most concerning behavior/activity) would be beneficial.

Functions of Behavior. In addition, the functions of the participating students' behaviors were not taken into account when establishing the Home-School Log as a data communication and decision making tool. Improving cross-systems communication and data-based decision making are not directly and functionally related to improving the behavioral targets of Academically Engaged and Non-Disruptive. When individualizing the log through initial team meetings, some initial conversation about hypothesized functions of behavior may have provided the team some preliminary guidance on evidence-based behavioral strategies to implement (while tracking improvement across settings through use of the log). Implementation of function-based positive behavioral support strategies through cross-systems collaboration has demonstrated effectiveness for improving target behaviors for young children with Autism (Blair et al., 2011). Additionally, the Home-School Log was designed for adults to communicate about behavior, but was not designed to be child-friendly enough for the students to also monitor their behavior. Guidance about how to provide specific feedback to the students about their positive behavior may have been beneficial as well.

Usability. An additional consideration for practitioners is the usability of the log. Overall, both educators and parents found the Home-School Log to be acceptable. One special education teacher liked the log so much that she decided to implement it with another student as well, even though he was not a participant in the study. Additionally, Student 2's team continued to use the log after the study ended. Student 4's team did not,

but later his parents mentioned to the researcher that they missed the detailed information it gave them. Feasibility of the log was rated moderate to high, however it is important to note that the study was originally designed to have less paraprofessional and researcher involvement in order to determine a more accurate assessment of the log's feasibility. Initially, the general education teachers did not intend to involve their paraprofessionals and student teachers in conducting the ratings. During the first week of baseline data collection, Student 1 and 4's classroom teachers decided that they needed assistance from additional support staff to complete the ratings in an accurate and timely manner. Student 2's teacher was able to complete the ratings independently, but Student 3's teacher did not have full-day support staff and had much difficulty completing the ratings. Overall feasibility ratings would likely have been lower if Student 1 and 4's teachers did not have the additional support staff to rely on.

Related, one educator on each team was to be designated as the data entry person, however the lack of an easily accessible and usable database for this purpose precluded the educators from being able to feasibly and efficiently incorporate data entry of the daily DBR-SIS data into their normal work hours. Thus, the researcher entered the data and created graphs for the educators to use when completing the Student Evaluation Form. Feasibility ratings would likely have been lower if the participants were required to complete this step. Educators would likely need assistance in the data entry and graphing portion of the Home-School Log data. Utilizing technology, such as through creating a Home-School Log application for use on computer tablets (e.g., iPad), could help facilitate cross-systems communication and streamline the process of data collection, data

entry, data graphing, and even visual analysis for teams to conduct those tasks without significant additional support.

Finally, Student 1's speech/language pathologist reported that targets that were tied to Student 1's individual IEP goals would have been more useful for her, since inappropriate behaviors were not a problem during her sessions. The Home-School Log used in this study only focused on behavioral progress monitoring and minimally on explicit carryover of skills. Further expanding upon the use of the Home-School Log to include both (a) data collection on progress towards academic, speech, gross/fine motor, social-emotional, and adaptive goals, and (b) suggested activities to promote such skills at home may enhance the usability of the log.

Overall, interpretations suggest that the key components to successful implementation of Home-School Log interventions must include consistent, daily data-tracking, efficiency of data evaluation, and explicit guidance on the decision-making process using a function-based approach. When considering implementing this type of Home-School Log intervention without researcher support, teams should identify what are the most relevant activities across settings and perhaps just one target behavior to communicate upon across settings, rather than collecting data on all behaviors of concern. Focusing data collection and evaluation on the most relevant agreed upon target behavior of concern, as well as identifying the hypothesized primary function of that behavior, may facilitate identification of appropriate strategies to implement and increase the feasibility with which student progress can be evaluated. Building-level school psychologists trained in functional behavioral consultation are well-equipped for facilitating this process for teams; efficient utilization of their services may eliminate the

need for external resource-intensive consultants that may be inaccessible in financially struggling school districts.

Limitations

There are several possible threats to internal validity when using multiple-baseline designs, which Kratochwill et al. (2010) recommend considering and addressing. For example, participants were randomly assigned to the order with which they entered the intervention phase, in order to mitigate possible biases due to when participants began the intervention. However, history effects are a possible threat to internal validity given that it is difficult to be sure that events occurring alongside the intervention were not influencing the observed effect. Participants were encouraged to mark in the log any changes to supports or routines and any relevant major events as they occurred, however such data were not collected systematically. Similarly, it is possible that natural maturation could have influenced the observed effect. Regression toward the mean may also be a threat. For example, DBR-SIS and SDO scores that are extreme at baseline, will typically be less extreme towards the end of the intervention phase, which is a psychometric phenomenon that may be confused with an intervention effect (Kratochwill et al., 2010). Multiple replications across participants and staggered intervention start times helped mitigate these confounds, however due to inconsistencies in the immediacy with which desirable effects were observed during the intervention phase as well as the existence of some unstable data during the baseline phase, it is difficult to completely rule out history and regression toward the mean effects. Researchers were also not blind to the purpose of the study or the study phase, thus observer bias is a concern.

Additionally, the *Pre- and Post-Intervention Surveys for Parents and Professionals* were researcher-developed based on previous literature, but the instrument was not empirically evaluated prior to use. The researcher-developed surveys as well as the Family-School Partnership Lab Parent and Teacher Questionnaires may have had insufficient sensitivity to change to recognize effects across the span of just a few months. Testing effects were another possible confound - participants were not blind to the purpose of the study and thus completing the surveys at pre-baseline may impact responses to the same surveys at post-intervention. Social desirability bias is another concern – educators tended to respond favorably to questions about their own cross-systems communication and data-based decision making practices, both at pre- and at post-intervention. If any did feel that their practices were in need of improvement, they may not have wanted to put that on paper, even though they were told that the survey responses would be kept confidential. Replicating the materials and procedures used in this study and evaluating whether similar results were found would strengthen conclusions that can be made.

Additionally, as a preliminary small *n* study exploring the effects of the Home-School Log with four white, non-Hispanic elementary school-aged students, the generalization of the study findings are limited. Follow-up information was not collected and thus it is unknown whether the intervention effects maintained. Overall, the possibility of such threats to internal and external validity temper conclusions that can be drawn from the results of this study, but internal and external validity can be strengthened through systematic replication (Kratochwill et al., 2010).

Implications for Research

Results of the current study have several implications for future research. Replicating procedures used in this study and evaluating whether similar results are found would strengthen conclusions that can be made. However, the limitations delineate several areas for improving upon the study design. The multiple baseline design demonstrated some experimental control, in that some students experienced immediate positive effects, but some instability in the data at baseline preclude complete confidence in the Home-School Log producing the effects observed. Exploring the impact of the log on fewer targeted activities and behaviors would be useful for future research. It also would be important to explore the log's effects on cross-systems communication and data-based decision making using an alternate measure that may be more sensitive to change (e.g., checklist completed periodically rather than pre- and post- surveys). Exploring the differences between conclusions made from sporadic SDO data versus more frequent DBR-SIS data would also be an area for future investigation. In addition, exploring use of other methodology, such as randomized control trials (i.e., randomizing teachers and students to treatment and control/alternate groups), may allow us to determine whether this Home-School Log intervention is more effective than other communication methods.

The child participants in the current study were comprised of elementary school age white, non-Hispanic students who were functioning well enough to be predominantly included in the general education setting, and all attended a school district which was predominantly middle to upper-middle socioeconomic status. Another area to consider for future research would be to expand use of the log with a more diverse population of

children on the Autism spectrum to see if similar results would be found and how much the log may have to be adapted for students of different ages, levels of functioning, ethnicities, or socio-economic statuses. The inclusion of lower functioning students may increase the chance of participants with community service providers, which would allow for a more comprehensive evaluation of cross-systems collaboration (home, school, and community; Dyches, 2011). Investigating the log's impact on older children would be an important area of future work as well, as parents of older children are at a greater risk for feeling dissatisfied with access to school and community care (Montes, Halterman, & Magyar. 2009). Related, exploring ways to additionally address parenting stress and parent need for support, can strengthen the cross-systems collaborative aspect of the Home-School Log (Hayes & Watson, 2012; Moh & Magiati, 2012; Seltzer et al., 2009). In addition, future research is needed to examine implementation fidelity with regards to the intervention protocol for more resistant educators who may not have as high views of home-school collaboration at pre-intervention.

Including students themselves in the intervention is also an area in need of further research. Self-monitoring literature is replete with evidence that students can collect data on their own behavior and the accompanying feedback can be a powerful agent for improving student behavior (Briesch & Chafouleas, 2009). However, it is unclear whether this type of intervention is effective for those on the Autism spectrum. Individuals with Autism are so diverse, that this would likely have to be a case by case determination. For example, those that are lower functioning may not have a level of self-awareness to understand traditional feedback about their behavior. Additionally, students with Autism may experience anxiety when receiving feedback about their behavior or in

reviewing their own data. Further research is needed to provide guidance for parents and educators when considering use of a structured feedback component with the Home-School Log.

Conclusion

Researchers have suggested that providing comprehensive, interdisciplinary interventions across settings early on for children can positively influence their later cognitive development and academic performance (Stahmer et al., 2011). However, collaboration with families across the entire process of assessment and intervention rarely occurs (Blair et al., 2010). The current study extends previous research in this area in that the proposed tool can (a) have high usability across home and school settings, (b) allow for systematic formative behavioral assessment using DBR-SIS methodology, and (c) be used with a population (i.e., ASD) that is at an increased need for such efforts. Despite the limitations noted in the current study, findings indicate that a Home-School Log intervention can be beneficial for improving cross-systems communication, data-based decision making practices, and positive outcomes for young students with an ASD. However, cross-systems communication and data evaluation alone may be insufficient for establishing *large* positive effects for all participants across targeted behaviors and activities. Educators likely require more guidance than anticipated for deciding on modifications to supports based on evaluation of behavioral data. Overall, the development of a standardized tool for providing communication offers practitioners an efficient, evidence-based way of collecting and sharing data across settings. Future research should focus on improving upon these findings with a wider population and enlisting involvement of a school-based individual who can facilitate data-based decision

making for teams. Easy to use tools that facilitate cross-systems communication and data-based decision making is an area in need of further development as the literature indicates that this will likely enhance outcomes for at-risk populations. The current study provides support for this.

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Table 1

Demographic Profiles of Participating Schools

	School 1	School 2
Grades	PreK – 2	3 – 5
Total Students	651	707
Ethnically Diverse Students	48 (7.4%)	55 (7.8%)
Students Receiving Special Education Services	57 (8.8%)	100 (14.1%)
Students Receiving Free or Reduced Lunch	26 (4.0%)	30 (4.2%)

Table 2

Parental Perceptions on the *Family-School Partnership Lab Parent Questionnaire*

Scale	*Mean (SD)*	
	Pre	Post
Parental Self-Efficacy for Helping the Child Succeed in School[a]	4.2	4.1
	(0.60)	(1.10)
General Invitations for Involvement from the School[a]	5.6	5.7
	(0.20)	(0.10)
Specific Invitations for Involvement from the Teacher[b]	3.7	4.0
	(2.00)	(2.00)
Parental Role Construction for Involvement in the Child's Education[a]	4.8	5.2
	(0.90)	(0.80)
Personal Knowledge and Skills[a]	5.2	5.3
	(0.29)	(0.31)
Personal Time and Energy[a]	5.3	5.3
	(0.10)	(0.23)
Home-based Involvement Activities[b]	5.4	5.6
	(0.55)	(0.38)

[a]1 = Disagree very strongly; 2 = Disagree; 3 = Disagree just a little; 4 = Agree just a little; 5 = Agree; 6 = Agree very strongly

[b]1 = Never; 2 =1 or 2 times; 3 =4 or 5 times; 4 =Once a week; 5 =A few times a week; 6 = Daily.

Table 3

Teacher Perceptions on the *Family-School Partnership Lab Teacher Questionnaire*

Scale	*Mean (SD)*	
	Pre	Post
Teacher Beliefs about Parental Involvement[a]	5.0	5.4
	(0.92)	(0.64)
Teacher Beliefs about Importance of Parent Involvement Practices[b]	5.1	5.0
	(1.19)	(1.00)
Teacher Beliefs about Parents' Efficacy for Helping Children Succeed in School[a]	5.2	5.2
	(0.53)	(0.72)
Teacher Reports of Parent Involvement[c]	4.1	4.0
	(1.61)	(1.68)
Teacher Report of Invitations to Parental Involvement[c]	4.0	4.0
	(1.45)	(1.61)

[a]1 = Disagree very strongly; 2 = Disagree; 3 = Disagree just a little; 4 = Agree just a little; 5 = Agree; 6 = Agree very strongly

[b]1 = Not at all important; 2 = Not important; 3 = Not very important; 4 = Somewhat important; 5 = Important; 6 = Very Important

[c]1 = Never; 2 = Once this year; 3 = Once each marking period; 4 = Once a month; 5 = Once every 1-2 weeks; 6 = 1+ times each week

Table 4

***Systematic Direct Observation (SDO)* Data Collected by Researchers**

	Baseline			Intervention			Effect Size[a]	PND[b]
	M	(SD)	Range	M	(SD)	Range		
Student 1								
Acad. Engaged	75.2	(19.13)	53.3-88.9	92.4	(7.05)	76.7-100.0	0.90	77.8%
Disruptive*	25.2	(13.58)	13.3-40.0	4.1	(3.19)	1.7-11.7	-1.55	100.0%
Student 2								
Acad. Engaged	60.3	(12.04)	43.3-69.4	89.5	(7.28)	78.3-96.7	2.42	100.0%
Disruptive*	28.3	(5.78)	23.3-36.7	15.6	(12.27)	5.0-36.7	-2.20	83.3%
Student 3								
Acad. Engaged	78.3	(11.14)	66.3-88.3	75.7	(11.58)	60.0-91.7	-0.24	20.0%
Disruptive*	24.2	(15.06)	6.7-38.3	25.0	(17.40)	6.7-46.7	0.06	0.0%
Student 4								
Acad. Engaged	81.7	(10.99)	71.7-100.0	92.5	(6.39)	83.3-98.3	0.99	0.0%
Disruptive*	25.3	(8.28)	15.0-36.67	16.9	(15.61)	3.3-43.3	-1.01	66.7%

*For Disruptive behavior, lower % scores and negative effect sizes are desirable

[a]*Effect Size*: Small = .20-.49, Medium = .50-.79, Large = .80+

[b]*Percent of Nonoverlapping Data*: PND < 50% Unreliable Treatment; PND 50-70% Questionable Effectiveness; PND 70-90% Fairly Effective; PND > 90% Highly Effective

Table 5

***Direct Behavior Rating Single-Item Scale (DBR-SIS)* Data Collected by Participants During Activity 1 (Morning Routine)**

	Baseline			Intervention			Effect Size[a]	PND[b]
	M	(SD)	Range	M	(SD)	Range		
Student 1								
Acad. Engaged	6.2	(3.03)	2-10	7.3	(2.21)	1-10	0.36	0.0%
Non-Disruptive	9.2	(1.30)	7-10	10.0	(0.00)	10-10	0.62	0.0%
Student 2								
Acad. Engaged	8.0	(1.79)	5-10	8.9	(1.00)	7-10	0.50	0.0%
Non-Disruptive	8.2	(2.14)	5-10	8.9	(1.07)	7-10	0.33	0.0%
Student 3								
Acad. Engaged	9.0	(0.82)	8-10	8.8	(1.40)	6-10	-0.24	0.0%
Non-Disruptive	8.7	(1.38)	6-10	8.2	(2.15)	2-10	-0.36	0.0%
Student 4								
Acad. Engaged	6.5	(2.23)	2-10	8.1	(2.57)	1-10	0.72	0.0%
Non-Disruptive	9.3	(0.90)	7-10	9.5	(1.07)	5-10	0.22	0.0%

[a]*Effect Size*: Small = .20-.49, Medium = .50-.79, Large = .80+

[b]*Percent of Nonoverlapping Data*: PND < 50% Unreliable Treatment; PND 50-70% Questionable Effectiveness; PND 70-90% Fairly Effective; PND > 90% Highly Effective

Table 6

***Direct Behavior Rating Single-Item Scale (DBR-SIS)* Data Collected by Participants During Activity 2 (Math)**

	Baseline			Intervention			Effect Size[a]	PND[b]
	M	(SD)	Range	M	(SD)	Range		
Student 1								
Acad. Engaged	7.2	(3.35)	2-10	8.5	(1.66)	5-10	0.39	0.0%
Non-Disruptive	9.6	(0.55)	9-10	9.9	(0.40)	8-10	0.55	0.0%
Student 2								
Acad. Engaged	6.1	(2.12)	2-8	7.2	(1.91)	3-9	0.52	37.5%
Non-Disruptive	8.0	(0.82)	7-9	8.3	(1.00)	6-10	0.37	8.3%
Student 3								
Acad. Engaged	6.7	(1.37)	5-9	8.7	(1.54)	5-10	1.46	42.9%
Non-Disruptive	4.2	(2.86)	2-9	8.4	(2.27)	2-10	1.47	42.9%
Student 4								
Acad. Engaged	7.4	(1.75)	4-10	7.9	(2.06)	2-10	0.29	0.0%
Non-Disruptive	8.9	(1.53)	5-10	9.3	(1.22)	5-10	0.26	0.0%

[a]*Effect Size*: Small = .20-.49, Medium = .50-.79, Large = .80+

[b]*Percent of Nonoverlapping Data*: PND < 50% Unreliable Treatment; PND 50-70% Questionable Effectiveness; PND 70-90% Fairly Effective; PND > 90% Highly Effective

Table 7

***Direct Behavior Rating Single-Item Scale (DBR-SIS)* Data Collected by Participants During Activity 3**

	Baseline			Intervention			Effect Size[a]	PND[b]
	M	(SD)	Range	M	(SD)	Range		
Student 1 - Reading								
Acad. Engaged	6.3	(3.06)	3-9	8.0	(1.66)	2-10	0.56	12.5%
Non-Disruptive	9.3	(1.15)	8-10	8.8	(0.97)	6-10	-0.43	0.0%
Student 2 - Reading								
Acad. Engaged	7.4	(1.95)	5-10	8.7	(0.73)	7-10	0.67	0.0%
Non-Disruptive	7.0	(1.73)	4-8	8.7	(0.66)	7-10	0.98	70.4%
Student 3 - Science/Social Studies								
Acad. Engaged	9.3	(0.58)	9-10	9.5	(0.85)	7-10	0.34	0.0%
Non-Disruptive	9.3	(0.58)	9-10	9.1	(1.69)	4-10	-0.34	0.0%
Student 4 - Language Arts								
Acad. Engaged	7.8	(1.19)	5-9	8.6	(1.66)	1-10	0.67	17.2%
Non-Disruptive	8.0	(1.30)	4-9	9.1	(0.52)	8-10	0.85	20.7%

[a]*Effect Size*: Small = .20-.49, Medium = .50-.79, Large = .80+

[b]*Percent of Nonoverlapping Data*: PND < 50% Unreliable Treatment; PND 50-70% Questionable Effectiveness; PND 70-90% Fairly Effective; PND > 90% Highly Effective

Table 8

Heuristics for Comparing Activity 1 *DBR-SIS* Data from Baseline to Intervention

	Level[a]	Effect Size[b]	Immediacy[c]	Consistency[d]	Overlap[e]	Trend[f]
Student 1						
Acad. Engaged	Increase	Small, positive	Increase	Improved	Unreliable	Slight incr. trend to moderate decr. trend
Non-Disruptive	Increase	Medium, positive	Increase	Improved	Unreliable	Slight decr. trend to stable trend
Student 2						
Acad. Engaged	Increase	Medium, positive	Increase	Improved	Unreliable	Stable trend to slight incr. trend
Non-Disruptive	Increase	Small, positive	Increase	Improved	Unreliable	Slight incr. trend to slight incr. trend
Student 3						
Acad. Engaged	Decrease	Small, negative	Decrease	Declined	Unreliable	Moderate incr. trend to moderate incr. trend
Non-Disruptive	Decrease	Small, negative	Decrease	Declined	Unreliable	Strong incr. trend to strong incr. trend
Student 4						
Acad. Engaged	Increase	Medium, positive	No Change	Declined	Unreliable	Moderate decr. trend to strong incr. trend
Non-Disruptive	Increase	Small, positive	No Change	Declined	Unreliable	Slight incr. trend to slight incr. trend

[a]*Level*: Increase, Decrease, or No Change in Mean
[b]*Effect Size*: Small = .20-.49, Medium = .50-.79, Large = .80+
[c]*Immediacy*: Increase, Decrease, or No Change between final baseline data points & first intervention data points
[d]*Consistency*: Improved, Declined, or No Change (using standard deviation as criterion)
[e]*Overlap*: Using PND criteria -- PND < 50% Unreliable Treatment; PND 50-70% Questionable Effectiveness; PND 70-90% Fairly Effective; PND > 90% Highly Effective
[f]*Trend*: Comparison of baseline phase trend to intervention phase trend

Table 9

Heuristics for Comparing Activity 2 *DBR-SIS* Data from Baseline to Intervention

	Level[a]	Effect Size[b]	Immediacy[c]	Consistency[d]	Overlap[e]	Trend[f]
Activity 2: Math						
Student 1						
Acad. Engaged	Increase	Small, positive	Increase	Improved	Unreliable	Slight decr trend to slight incr. trend
Non-Disruptive	Increase	Medium, positive	Increase	Improved	Unreliable	Slight decr. trend to stable trend
Student 2						
Acad. Engaged	Increase	Medium, positive	Increase	Improved	Unreliable	Strong incr. trend to slight incr. trend
Non-Disruptive	Increase	Small, positive	No Change	Declined	Unreliable	Stable trend to slight incr. trend
Student 3						
Acad. Engaged	Increase	Large, positive	Increase	Declined	Unreliable	Moderate incr. trend to slight decr. trend
Non-Disruptive	Increase	Large, positive	Increase	Improved	Unreliable	Strong incr. trend to strong decr. trend
Student 4						
Acad. Engaged	Increase	Small, positive	No Change	Declined	Unreliable	Slight incr. trend to moderate incr. trend
Non-Disruptive	Increase	Small, positive	No Change	Improved	Unreliable	Slight incr. trend to slight incr. trend

[a]*Level*: Increase, Decrease, or No Change in Mean
[b]*Effect Size*: Small = .20-.49, Medium = .50-.79, Large = .80+
[c]*Immediacy*: Increase, Decrease, or No Change between final baseline data points & first intervention data points
[d]*Consistency*: Improved, Declined, or No Change (using standard deviation as criterion)
[e]*Overlap*: Using PND criteria -- PND < 50% Unreliable Treatment; PND 50-70% Questionable Effectiveness; PND 70-90% Fairly Effective; PND > 90% Highly Effective
[f]*Trend*: Comparison of baseline phase trend to intervention phase trend

Table 10

Heuristics for Comparing Activity 3 *DBR-SIS* Data from Baseline to Intervention

	Level[a]	Effect Size[b]	Immediacy[c]	Consistency[d]	Overlap[e]	Trend[f]
Student 1						
Acad. Engaged	Increase	Medium, positive	Decrease	Improved	Unreliable	Moderate incr. trend to slight incr. trend
Non-Disruptive	Decrease	Small, negative	Decrease	Improved	Unreliable	Stable trend to slight decr. trend
Student 2						
Acad. Engaged	Increase	Medium, positive	Decrease	Improved	Unreliable	Moderate incr. trend to slight decr. trend
Non-Disruptive	Increase	Large, positive	No Change	Improved	Fairly Effective	Moderate incr. trend to slight incr. trend
Student 3						
Acad. Engaged	Increase	Small, positive	Increase	Declined	Unreliable	Stable trend to slight incr. trend
Non-Disruptive	Decrease	Small, negative	Increase	Declined	Unreliable	Stable trend to moderate incr. trend
Student 4						
Acad. Engaged	Increase	Medium, positive	Decrease	Declined	Unreliable	Moderate incr. trend to slight incr. trend
Non-Disruptive	Increase	Large, positive	No Change	Improved	Unreliable	Slight incr. trend to slight incr. trend

[a]*Level*: Increase, Decrease, or No Change in Mean
[b]*Effect Size*: Small = .20-.49, Medium = .50-.79, Large = .80+
[c]*Immediacy*: Increase, Decrease, or No Change between final baseline data points & first intervention data points
[d]*Consistency*: Improved, Declined, or No Change (using standard deviation as criterion)
[e]*Overlap*: Using PND criteria -- PND < 50% Unreliable Treatment; PND 50-70% Questionable Effectiveness; PND 70-90% Fairly Effective; PND > 90% Highly Effective
[f]*Trend*: Comparison of baseline phase trend to intervention phase trend

Table 11

Mean Percentage of Home-School Log Implementation Based on Permanent Product Data Gathered Using the *Treatment Integrity Checklist*

Treatment Integrity Checklist	Student 1	Student 2	Student 3	Student 4
Daily Rating Page(s):				
Educator…				
1. Rated behaviors on Daily Rating page during Activity 1	97.0	100.0	66.7	97.0
2. Rated behaviors on Daily Rating page during Activity 2	91.2	73.5	55.9	96.4
3. Rated behaviors on Daily Rating page during Activity 3	89.5	80.0	42.9	91.2
4. Gave Home-School Log to student to take home	94.6	97.2	51.4	100.0
5. Classroom teacher provided talking point and/or Suggested Activity for parent to complete at home with child	87.8	91.9	0.0	65.7
6. Classroom teacher completed Student Evaluation Template and placed in Home-School Log (when applicable)	100.0	100.0	25.0	100.0
Home Activity Page:				
Parent…				
1. Provided comments about how child was after school/on the weekend	80.5	89.2	51.4	82.9
2. Completed Setting Events checklist	82.9	89.2	51.4	97.1
3. Initialed bottom of Daily Rating page	78.0	97.3	57.1	97.1
4. Gave Home-School Log to student to bring to school	94.9	100.0	51.4	97.1
Total:				
Daily Rating Page Mean %:	90.4	87.7	41.5	89.1
Home Activity Page Mean %:	82.9	93.9	53.3	93.6
Overall Mean % of Implementation:	**86.3**	**90.7**	**47.1**	**91.3**

Table 12

Means and Standard Deviations for Post-Intervention *Usage Rating Profile-Intervention Revised (URP-IR)* Ratings

		Survey Respondents (n=15)				
Factors (n=6)		General Ed. Teachers (n=4)	Special Ed. Teachers (n=2)	Related Service Providers (n=3)	Para-professionals (n=2)	Parents (n=4)
Acceptability	M	4.8	5.3	4.1	5.4	4.9
	(SD)	(0.41)	(0.39)	(1.28)	(0.24)	(0.47)
Understanding	M	5.3	5.2	5.1	5.7	5.6
	(SD)	(0.47)	(1.18)	(0.19)	(0.47)	(0.50)
Home-School Collaboration	M	5.6	5.3	5.4	6.0	5.1
	(SD)	(0.50)	(0.94)	(0.51)	(0.00)	(0.83)
Feasibility	M	4.4	4.2	4.5	5.3	5.4
	(SD)	(0.73)	(1.89)	(0.87)	(0.71)	(0.66)
System Climate	M	5.2	4.5	4.4	5.5	--
	(SD)	(0.50)	(1.84)	(0.92)	(0.14)	--
System Support*	M	2.2	2.8	2.2	2.7	--
	(SD)	(0.96)	(1.84)	(0.38)	(0.47)	--

Note: Items on the URP-IR were rated on a 1-6 scale (1=Strongly Disagree, 6=Strongly Agree). Related service providers included a school psychologist, speech/language pathologist, and occupational therapist.

*Lower scores for System Support are desirable as they reflect greater confidence in being able to implement the intervention independently.

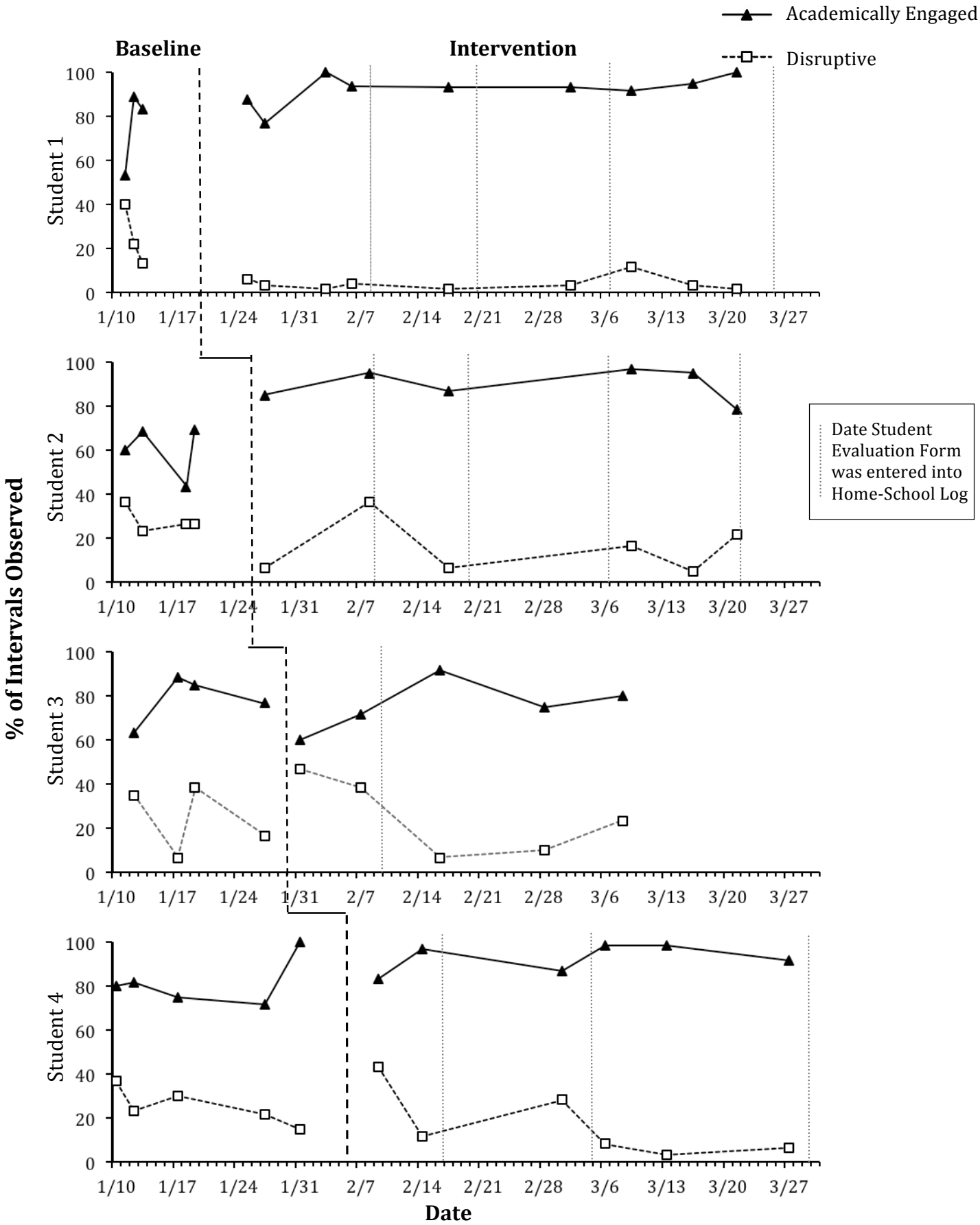


Figure 1. Percentage of intervals researchers observed students to be displaying Academically Engaged and Disruptive behavior during randomly selected subset of target activities.

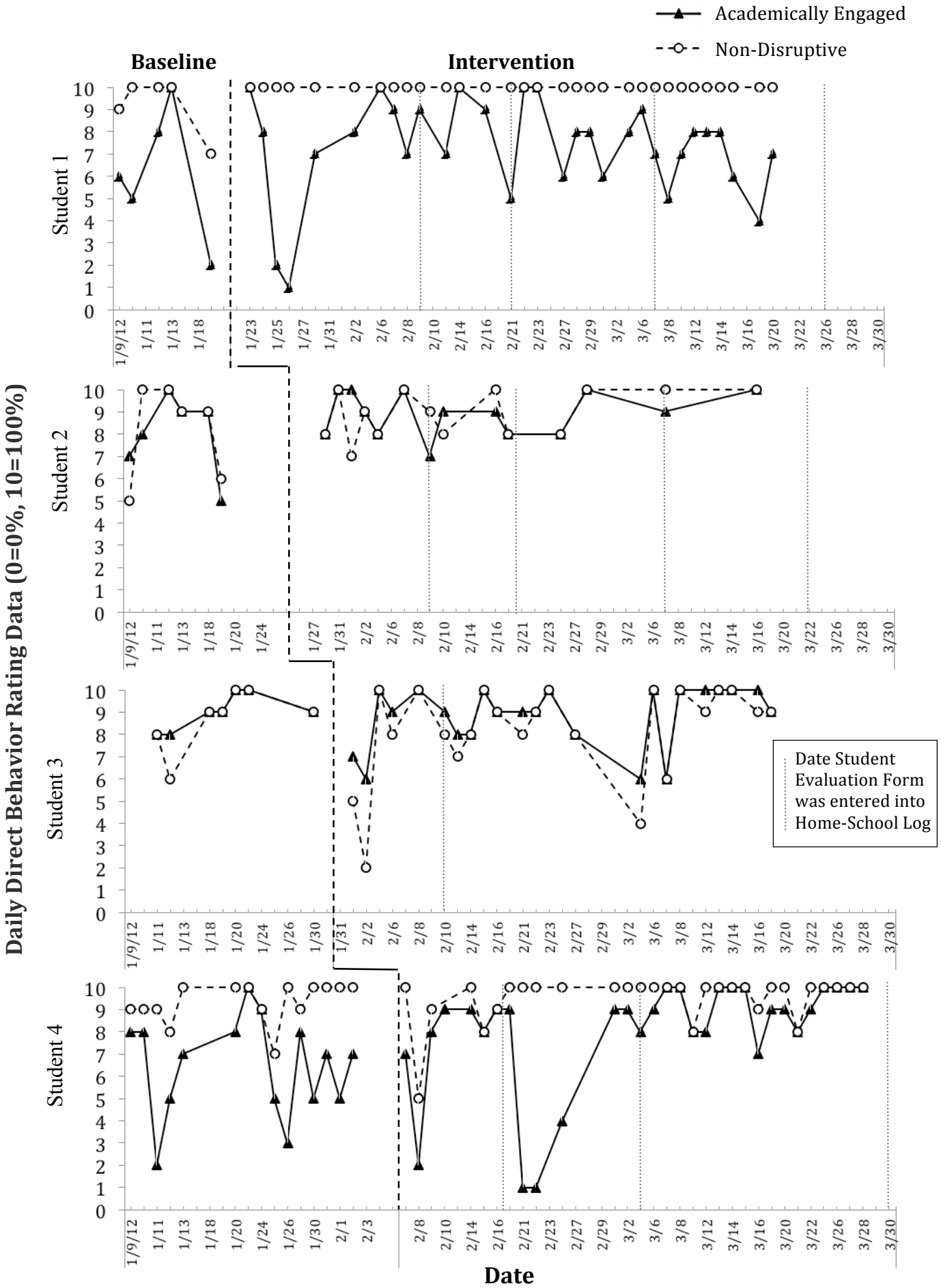


Figure 2. DBR data of Academically Engaged and Non-Disruptive Behavior Present During Activity 1 (Morning Routine)

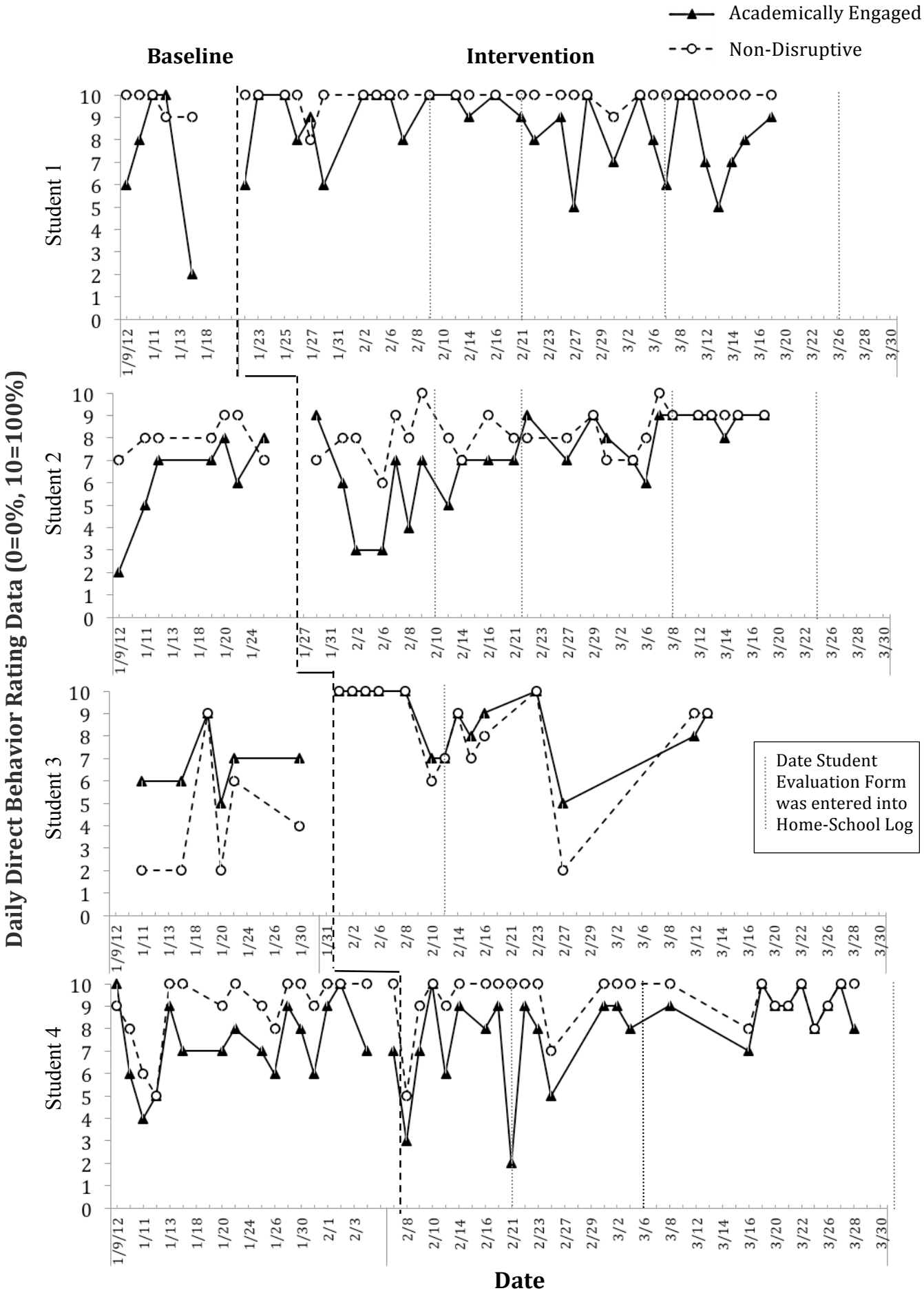


Figure 3. DBR data of Academically Engaged and Non-Disruptive Behavior Present During Activity 2 (Math)

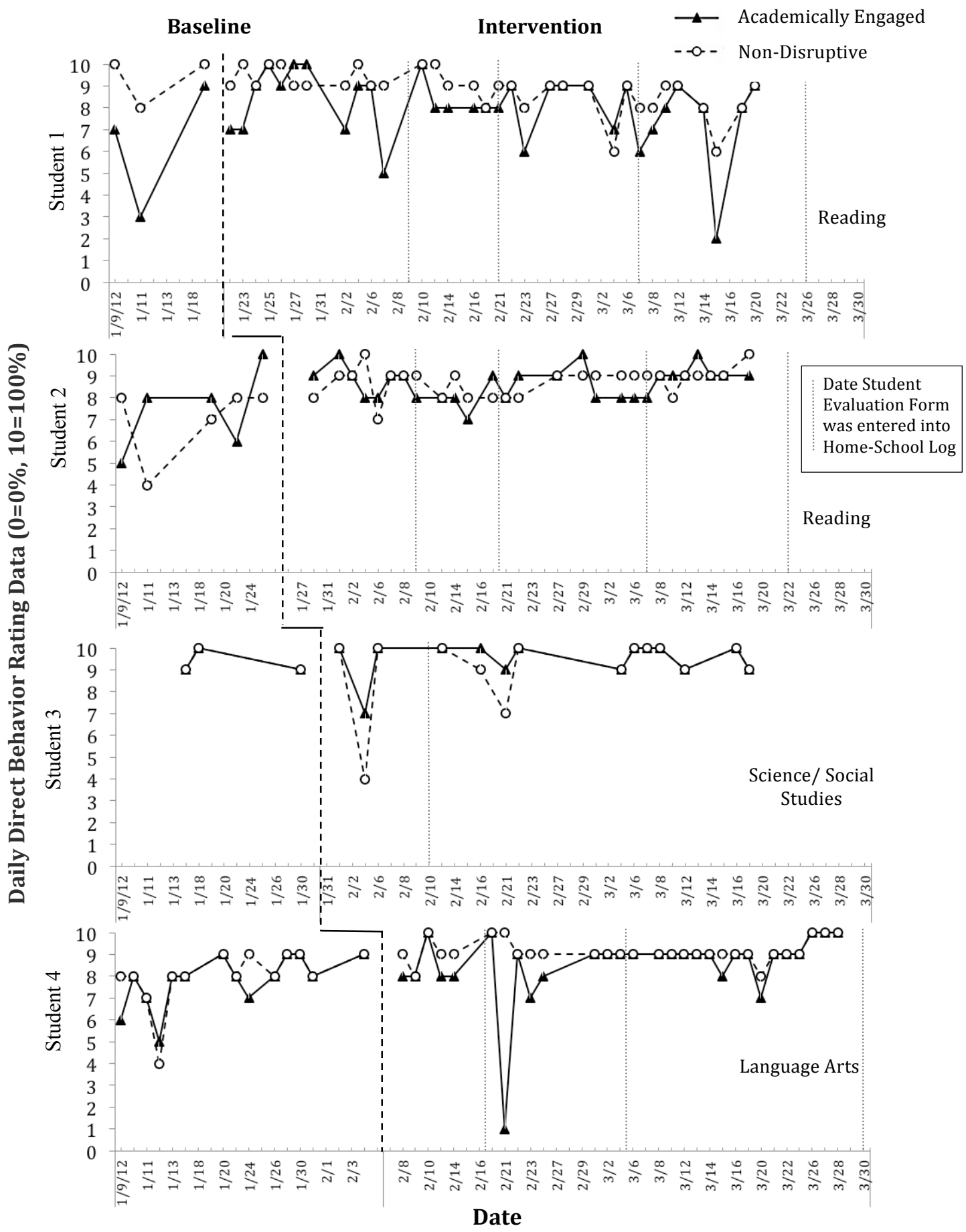


Figure 4. DBR data of Academically Engaged and Non-Disruptive Behavior Present During Activity 3 (Reading, Language Arts, or Science/Social Studies)

Appendix A

Parent/Guardian and Student Background Form

Thank you for allowing your child to participate in our project. Completion of this form is optional and all information will remain confidential. All names will be removed and will not be shared with anyone outside this project and an ID number will be assigned to all forms.

Student Information

Name: _____ **Today's Date**:_____
First Middle Last Month Day Year

School: _____**Teacher's Name**:_____

Grade: _____ **Age:**_____ **Birthdate**:_____ **Sex**: ☐ Male ☐ Female
Month Day Year

Student's Race/Ethnicity:

☐ American Indian/ Alaska Native
☐ Asian/ Pacific Islander
☐ Hispanic
☐ Black, non-Hispanic
☐ White, non-Hispanic
☐ Bi-racial:_____
☐ Other:_____

Diagnosis/Classification(s): _____

Parent Information

Name: _____ **Telephone:**_____
First Middle Last

Address: _____ **City:**_____ **State:**_____

How are you related to this child?

☐ Mother ☐ Father ☐ Guardian ☐ Other: _____

How many children under the age of 19 live in your home? _____

Your Race/Ethnicity:

☐ American Indian/ Alaska Native
☐ Asian/ Pacific Islander
☐ Hispanic
☐ Black, non-Hispanic
☐ White, non-Hispanic
☐ Bi-racial: _____
☐ Other: _____

Does your child receive special education services? ☐ No ☐ Yes
If yes, kind of services or classes:_____

Does your child receive any services outside of the school? ☐ No ☐ Yes
If yes, kind of services or classes:_____

Has your child had any academic problems in school? ☐ No ☐ Yes **At home?** ☐ No ☐ Yes
If yes to either, when did they start? _____
Have these problems ended?_____

Has your child had any behavioral problems in school? ☐ No ☐ Yes **At home?** ☐ No ☐ Yes
If yes to either, when did they start? _____
Have these problems ended?_____

General Education Teacher and Student Background Form

Thank you for participating in our project. Completion of this form is optional and all information will remain confidential. All names will be removed and will not be shared with anyone outside this project and an ID number will be assigned to all forms.

Teacher Information

Name: _____ **Today's Date**:_____
First Middle Last Month Day Year

School: _____ **Telephone:**_____ **E-Mail**:_____

Age:____ **Birthdate**: _____ **Sex**: ☐ Male ☐ Female
Month Day Year

Number of Years Teaching:____ **Current Grade(s) Teaching**: _____

Highest Degree Attained:

☐ High School or GED
☐ Some college, 2-year
☐ College or vocational
☐ Bachelor's degree
☐ Other:_____
☐ Some graduate work
☐ Master's degree
☐ Master's plus sixth year certificate
☐ Doctoral degree

Race/Ethnicity:

☐ American Indian/ Alaska Native
☐ Hispanic
☐ White, non-Hispanic
☐ Other:_____
☐ Asian/ Pacific Islander
☐ Black, non-Hispanic
☐ Bi-racial:_____

Student Information

Student's Name:_____

How long have you known this student?:_____

Does this student receive special education services? ☐ No ☐ Yes

If yes, kind of services or classes:_____

If no, has this student been referred for an evaluation to determine his/her need for special education services (if yes, please describe reason for referral)?:_____

_____

Has this student had any academic problems in school? ☐ No ☐ Yes

If your child has had problems when did they start? _____

Have these problems ended?_____

Has this student had any behavioral problems in school? ☐ No ☐ Yes

If your child has had problems when did they start? _____

Have these problems ended?_____

Educator and Service Provider Background Form

Thank you for participating in our project. Completion of this form is optional and all information will remain confidential. All names will be removed and will not be shared with anyone outside this project and an ID number will be assigned to all forms.

Educator/Service Provider Information

Name: _____ **Today's Date**:_____
First Middle Last Month Day Year

School/Center/Office: _____**Telephone:**_____ **E-Mail**:_____

Age:____ **Birthdate**: _____ **Sex**: ☐ Male ☐ Female
Month Day Year

Profession:_____ **Number of Years in Profession:**_____

Current Grades/Ages that you teach or provide services to: _____

Highest Degree Attained:

☐ High School or GED
☐ Some college, 2-year
☐ College or vocational
☐ Bachelor's degree
☐ Other:_____
☐ Some graduate work
☐ Master's degree
☐ Master's plus sixth year certificate
☐ Doctoral degree

Race/Ethnicity:

☐ American Indian/ Alaska Native
☐ Hispanic
☐ White, non-Hispanic
☐ Other:_____
☐ Asian/ Pacific Islander
☐ Black, non-Hispanic
☐ Bi-racial:_____

Student Information

Student's Name:_____

How long have you known this student?_____

What services do you provide to the student (or what areas do you teach to the student)?

_____

_____

How often do you teach or provide services to the student (e.g., twice per week)?

_____

Please list the days and times that you typically see the child: _____

Where do you typically provide services to the child? Briefly describe setting (e.g., in office at the school, small group in resource room at the school, regular classroom, at office/center outside the school):

_____

School Demographics Form

School: _____

Grades: _____

Total Number of Students: _____

Number of Ethnically Diverse Students: _____

Number of Students Receiving Special Education services: _____

Number of Students Receiving Free or Reduced Lunch: _____

Student ID: _____

Appendix B

Diagnostic Criteria Checklist

Researcher Instructions: Review the student's records to confirm child's diagnosis of Autistic Disorder or PDD-NOS using criteria from the DSM-IV-TR (APA, 2000).

Diagnosis/Classification(s)

Educational (IDEA): _____

Medical/Clinical (DSM-IV): _____

Autistic Disorder (299.00)

A. A total of six (or more) items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3):

(1) qualitative impairment in social interaction, as manifested by at least two of the following:

(a) marked impairment in the use of multiple nonverbal behaviors, such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction

(b) failure to develop peer relationships appropriate to developmental level

(c) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest)

(d) lack of social or emotional reciprocity

(2) qualitative impairments in communication, as manifested by at least one of the following:

(a) delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)

(b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others

(c) stereotyped and repetitive use of language or idiosyncratic language

(d) lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level

(3) restricted, repetitive, and stereotyped patterns of behavior, interests, and activities as manifested by at least one of the following:

(a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus

(b) apparently inflexible adherence to specific, nonfunctional routines or rituals

(c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting or complex whole-body movements)

(d) persistent preoccupation with parts of objects

B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.

C. The disturbance is not better accounted for by Rett's disorder or childhood disintegrative disorder.

Student ID: _____

Pervasive Developmental Disorder, Not Otherwise Specified (PDD-NOS; 299.80)

This category should be used when there is

(a) a severe and pervasive impairment in the development of reciprocal social interaction or verbal and nonverbal communication skills, **or**

(b) when stereotyped behavior, interests, and activities are present,

but the criteria are not met for a specific pervasive developmental disorder, schizophrenia, schizotypal personality disorder, or avoidant personality disorder.

For example, this category includes "atypical autism" --presentations that do not meet the criteria for autistic disorder because of late age of onset, atypical symptomatology, or subthreshold symptomatology, or all of these.

Reference

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders, Fourth edition, Text revision*. Washington, DC: American Psychiatric Association.

Appendix C

Pre-Intervention Survey for Professionals

Your Name: _____ Date: _____

Position: _____

Student's Name: _____

Please complete the following survey by checkmarking or writing in the appropriate response. Your responses will be kept confidential and will only be viewed by the researchers. Your responses are important, so please answer all questions honestly. You may contact the graduate student researcher, Rose Jaffery, at (555) 555-1234 if you have any questions. Please think of **this school year and this child** when responding to items in this survey.

1. *Please indicate how <u>frequently</u> you communicate with this child's parent(s) about the child's progress or concerns in and/or outside of school, changes at home, etc.*

   ☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

2. *I am satisfied with the amount of communication I have with this child's parent(s).*

   ☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

3. *I am satisfied with the quality of communication I have with this child's parent(s).*

   ☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

4. *I am satisfied with the communication I have with the in-school providers/educators involved with this child's education.*

   ☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

5. *I am satisfied with the communication I have with the service providers outside of school involved with this child's education.*

   ☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree ☐ N/A (No outside service providers)

6. *When I have a concern about this child, I let this child's parents know within one week.*

   ☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

   Reason? _____

7. **In-School Professionals***: When this child has a particularly difficult time during the school day, I _____ know if something happened outside of school that may have influenced this (e.g., child was sick, did not sleep well, fought with sibling).*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

8. **Professionals Outside of School***: When this child has a particularly difficult time during a session, I _____ know if something happened at home or school that may have influenced this (e.g., child was sick, did not sleep well, fought with sibling).*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

9. *Please use the following scale to indicate how often you share data/information with each of the in-school providers/educators involved with this child's education. Write in the position of any of this child's in-school providers/educators that are not listed.*

1 = Never 2 = Daily 3 = Weekly 4 = Monthly 5 = Quarterly 6 = Annually 7=N/A or Self

_____ Regular Classroom Teacher(s)

_____ Special Education Teacher(s)

_____ Speech/Language Therapist

_____ Occupational Therapist

_____ Physical Therapist

_____ _____

_____ School Psychologist

_____ Social Worker

_____ School Counselor

_____ Paraprofessional(s)

_____ Behavioral Consultant (e.g., BCBA)

_____ _____

10. *How do you typically communicate with this child's parents? Check all that apply and also mark how frequently you use each method.*

☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____	☐ N/A
☐ Daily	☐ Daily	☐ Daily	☐ Daily	☐ Daily	I do not communicate with this child's parents
☐ Weekly	☐ Weekly	☐ Weekly	☐ Weekly	☐ Weekly	
☐ Monthly	☐ Monthly	☐ Monthly	☐ Monthly	☐ Monthly	
☐ Quarterly	☐ Quarterly	☐ Quarterly	☐ Quarterly	☐ Quarterly	
☐ Annually	☐ Annually	☐ Annually	☐ Annually	☐ Annually	
☐ _____	☐ _____	☐ _____	☐ _____	☐ _____	

*11. How do you typically communicate with each of this child's <u>in-school</u> educators and service providers? **Check all that apply** and also mark how frequently (e.g., daily, weekly, monthly, annually) you use each method.*

☐ N/A - I do not communicate with any of this child's in-school educators/ service providers

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

*12. How do you typically communicate with each of this child's service providers <u>outside of school</u>? **Check all that apply** and also mark how frequently (e.g., daily, weekly, monthly, annually) you use each method.*

☐ N/A - I do not communicate with any of this child's outside service providers

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

13. Please indicate how frequently you communicate (two-way) with this child's parent(s) for:

	Never	**Daily**	**Weekly**	**Monthly**	**Quarterly**	**Annually**
positive reasons.						
routine matters.						
progress updates.						
behavioral concerns.						
academic concerns.						

14. Parents are an important resource for in-school and out-of-school professionals.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

15. Overall, my working relationship with this child's parent(s) is

☐ Very poor ☐ Poor ☐ Okay ☐ Good ☐ Excellent

16. It is difficult for this child's parent(s) and I to work together.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

17. When there is a behavior problem, I have to solve it without help from this child's parent(s).

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

18. When there are difficulties or disputes about this child's educational planning, it takes too long to resolve them.

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

19. I feel this child's parent(s) respect my professional opinions, suggestions, and decisions concerning this child.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

20. How often do you collect data on this child's behavioral progress?

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

21. This child's team of in-school and outside professionals regularly communicates to evaluate whether this child's program(s) continues to meet his/her needs.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

22. How often are decisions made about this child's educational programming or services?

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

23. How often do you involve this child's parent(s) in decisions made about this child's educational programming or services?

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

24. When parents communicate with me about this child, I am happy that they: _____

_____

_____

_____

25. When parents communicate with me about this child, I wish they would: _____

_____

_____

_____

Thank you for your participation!

Please return this survey to Rose Jaffery in the envelope provided. If you have any questions you may contact Rose at (555) 555-1234.

Appendix D

Pre-Intervention Survey for Parents

Your Name: _____ Date: _____

Relation to Student: _____

Student's Name: _____

Please complete the following survey by checkmarking or writing in the appropriate response. Your responses will be kept confidential and will only be viewed by the researchers. Your responses are important, so please answer all questions honestly. You may contact the graduate student researcher, Rose Jaffery, at (555) 555-1234 if you have any questions. Please think of **this school year** when responding to items in this survey.

1. *Using the following scale, please indicate how **frequently** you communicate with each of your child's educators and service providers, in more than just a passing conversation (e.g., about the child's progress, changes at home, concerns).*

1 = Daily 2 = Weekly 3 = Monthly 4 = Quarterly 5 = Never 6 = N/A

Educators/Service Providers at School

_____ Regular Classroom Teacher(s) _____ School Psychologist

_____ Special Education Teacher(s) _____ Social Worker

_____ Speech/Language Therapist _____ School Counselor

_____ Occupational Therapist _____ Paraprofessional(s)

_____ Physical Therapist _____ Behavioral Consultant (e.g., BCBA)

_____ _____ _____ _____

Service Providers Outside of School (e.g., behavior therapist, speech, occupational therapy, psychiatrist)

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

2. Write in the number that best describes how much you agree or disagree with the

following statement for each individual listed below: *I am satisfied with the **amount** of communication I have with my child's educators and service providers.*

1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree 5 = N/A

Educators/Service Providers at School

_____ Regular Classroom Teacher(s) _____ School Psychologist

_____ Special Education Teacher(s) _____ Social Worker

_____ Speech/Language Therapist _____ School Counselor

_____ Occupational Therapist _____ Paraprofessional(s)

_____ Physical Therapist _____ Behavioral Consultant (e.g., BCBA)

_____ _____ _____ _____

Service Providers Outside of School (e.g., behavior therapist, speech, occupational therapy, psychiatrist)

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

3. Write in the number that best describes how much you agree or disagree with the following statement for each individual listed below: *I am satisfied with the **quality** of communication I have with my child's educators and service providers (e.g., they listen and respond to my concerns, they provide useful recommendations).*

1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree 5 = N/A

Educators/Service Providers at School

_____ Regular Classroom Teacher(s) _____ School Psychologist

_____ Special Education Teacher(s) _____ Social Worker

_____ Speech/Language Therapist _____ School Counselor

_____ Occupational Therapist _____ Paraprofessional(s)

_____ Physical Therapist _____ Behavioral Consultant (e.g., BCBA)

_____ _____ _____ _____

3. (continued) *I am satisfied with the **quality** of communication I have with my child's educators and service providers (e.g., they listen and respond to my concerns, they provide useful recommendations).*

1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree 5 = N/A

Service Providers Outside of School (e.g., behavior therapist, speech, occupational therapy, psychiatrist)

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

4. *My child's in-school educators/service providers share information/data with me*

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

5. *My child's service providers outside of school share information/data with me*

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

6. *Overall, I am satisfied with the amount of information I get from school about how my child is doing.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

7. *Overall, I am satisfied with the amount of information I get from service providers outside the school about how my child is doing.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

8. *I let my child's educators at school know within one week if I have a concern about my child or if there is something important that the educators should know about.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

9. *I let my child's service providers know within one week if I have a concern about my child or if there is something important that the providers should know about.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

10. *How do you typically communicate with each of your child's <u>in-school</u> educators and service providers? **Check all that apply** and also mark how frequently (e.g., daily, weekly, monthly, annually) you use each method.*

☐ N/A - I do not communicate with any of this child's in-school educators/ service providers

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

*11. How do you typically communicate with each of your child's service providers <u>outside of school</u>? **Check all that apply** and also mark how frequently (e.g., daily, weekly, monthly, annually) you use each method.*

☐ N/A - I do not communicate with any of this child's outside service providers

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

12. *When my child has a particularly difficult time during the school day, I am informed within two days.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

13. *When my child has a particularly difficult time during a session outside of school, I am informed about it from the service provider within two days.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

14. *When my child has a particularly good day at school, I am informed within two days.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

15. *When my child has a particularly good session outside of school, I am informed about it from the service provider within two days.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

16. *My child's educators and providers at school answer my questions in a timely manner.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

17. *My child's service providers outside of school answer my questions in a timely manner.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

18. *My child and I talk about what he or she is learning in school.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A (e.g., communication not possible)

19. *I feel comfortable talking with my child's in-school educators/providers about my child.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

20. *I feel comfortable talking with my child's out-of-school service provider(s) about my child.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

Since the beginning of this school year…	**Never**	**Daily**	**Weekly**	**Monthly**	**Quarterly**	**Annually**
21. Please indicate how frequently you communicate (two-way) with your child's in-school educators/providers for:						
positive reasons.						
routine matters.						
progress updates.						
concerns.						
22. Please indicate how frequently you communicate (two-way) with your child's out-of-school provider(s) for:						
positive reasons.						
routine matters.						
progress updates.						
concerns.						
23. How often does the information that your child's educators at school send home help you to:						
work with your child?						
keep you informed about your child's progress?						
stimulate communication between you and your child?						
24. How often does the information that your child's providers outside of school send home help you to:						
work with your child?						
keep you informed about your child's progress?						
stimulate communication between you and your child?						

25. Overall, my working relationship with my child's educator(s) and service providers is

☐ Very poor ☐ Poor ☐ Okay ☐ Good ☐ Excellent

26. *When there are difficulties or disputes with my child's in-school educators and/or providers, it takes too long to work them out.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

27. *It is difficult for my child's in-school educators/providers, out-of-school providers, and me to work together.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

28. *When there is a behavior problem at home, I have to solve it without help from my child's educator(s) and service providers.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

29. *I feel my child's educator(s) and service provider(s) value my opinions, suggestions, and decisions concerning my child.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

30. *Educators and service providers treat me as a valued team member.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

31. *How often do your child's educators try to involve you in decisions made about your child's education?*

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

32. *How often do you track your child's behavioral progress at home?*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

33. *I am satisfied with how well my child's team communicates and shares information among each team member.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

34. *My child's team of in-school and outside professionals regularly communicates to evaluate whether my child's program(s) continues to meet his/her needs.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

35. *My child's in-school educators/providers give me enough information to know whether or not my child is making appropriate progress.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

36. My child's service providers outside of school give me enough information to know whether or not my child is making appropriate progress.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

37. Decisions are made about my child's educational programming or services

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

38. I am involved in decisions made about my child's educational programming or services

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

39. *When educators/providers at school communicate with me about my child, I am happy that they*: _____

_____

_____

40. *When educators/providers at school communicate with me about my child, I wish they would*: _____

_____

_____

41. *When service providers outside the school communicate with me about my child, I am happy that they*: _____

_____

_____

42. *When service providers outside the school communicate with me about my child, I wish they would*: _____

_____

_____

Thank you for your participation!

Please return this survey to Rose Jaffery in the envelope provided. If you have any questions you may contact Rose at (555) 555-1234.

Appendix E

Post-Intervention Survey for Professionals

Your Name: _____ Date: _____

Position: _____

Student's Name: _____

Please complete the following survey by checkmarking or writing in the appropriate response. Your responses will be kept confidential and will only be viewed by the researchers. Your responses are important, so please answer all questions honestly. You may contact the graduate student researcher, Rose Jaffery, at (555) 555-1234 if you have any questions. Please think of the **weeks since you started using the Home-School Log with this child** when responding to the following items.

1. *Please indicate how <u>frequently</u> you communicate with this child's parent(s) about the child's progress or concerns in and/or outside of school, changes at home, etc. (including information communicated using the Home-School Log).*

   ☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

2. *I am satisfied with the amount of communication I have with this child's parent(s).*

   ☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

3. *I am satisfied with the quality of communication I have with this child's parent(s).*

   ☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

4. *I am satisfied with the communication I have with the in-school providers/educators involved with this child's education.*

   ☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

5. *I am satisfied with the communication I have with the service providers outside of school involved with this child's education.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree ☐ N/A (No outside service providers)

6. *When I have a concern about this child, I let this child's parents know within one week.*

   ☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

   Reason? _____

7. **In-School Professionals***: When this child has a particularly difficult time during the school day, I _____ know if something happened outside of school that may have influenced this (e.g., child was sick, did not sleep well, fought with sibling).*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

8. **Professionals Outside of School***: When this child has a particularly difficult time during a session, I _____ know if something happened at home or school that may have influenced this (e.g., child was sick, did not sleep well, fought with sibling).*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

9. *Please use the following scale to indicate how often you share data/information with the in-school providers/educators involved with this child's education. Write in the position of any of this child's in-school providers/educators that are not listed.*

1 = Never 2 = Daily 3 = Weekly 4 = Monthly 5 = Quarterly 6 = Annually 7=N/A or Self

_____ Regular Classroom Teacher(s)

_____ Special Education Teacher(s)

_____ Speech/Language Therapist

_____ Occupational Therapist

_____ Physical Therapist

_____ _____

_____ School Psychologist

_____ Social Worker

_____ School Counselor

_____ Paraprofessional(s)

_____ Behavioral Consultant (e.g., BCBA)

_____ _____

10. *How do you typically communicate with this child's parents? Check all that apply and also mark how frequently you use each method.*

☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____	☐ N/A
☐ Daily	☐ Daily	☐ Daily	☐ Daily	☐ Daily	I do not communicate with this child's parents
☐ Weekly	☐ Weekly	☐ Weekly	☐ Weekly	☐ Weekly	
☐ Monthly	☐ Monthly	☐ Monthly	☐ Monthly	☐ Monthly	
☐ Quarterly	☐ Quarterly	☐ Quarterly	☐ Quarterly	☐ Quarterly	
☐ Annually	☐ Annually	☐ Annually	☐ Annually	☐ Annually	
☐ _____	☐ _____	☐ _____	☐ _____	☐ _____	

*11. How do you typically communicate with each of this child's <u>in-school</u> educators and service providers? **Check all that apply** and also mark how frequently (e.g., daily, weekly, monthly, annually) you use each method.*

☐ N/A - I do not communicate with any of this child's in-school educators/ service providers

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

*12. How do you typically communicate with each of this child's service providers <u>outside of school</u>? **Check all that apply** and also mark how frequently (e.g., daily, weekly, monthly, annually) you use each method.*

☐ N/A - I do not communicate with any of this child's outside service providers

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

13. Please indicate how frequently you communicate (two-way) with this child's parent(s) for:

	Never	Daily	Weekly	Monthly	Quarterly	Annually
positive reasons.						
routine matters.						
progress updates.						
behavioral concerns.						
academic concerns.						

14. *Overall, the use of the Home-School Log improved my communication with this child's parents.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

15. *Overall, the use of the Home-School Log improved my communication with this child's in-school providers/educators (e.g., school psychologist, teachers, speech/language therapist, occupational therapist, social worker, school counselor, administrators).*

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

Explain: _____

16. *Overall, the use of the Home-School Log improved my communication with this child's providers outside of school (e.g., speech/language therapist, occupational therapist, social worker, psychiatrist, behavior interventionist).* ☐ N/A

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

Explain: _____

17. Parents are an important resource for in-school and out-of-school professionals.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

18. Overall, my working relationship with this child's parent(s) is

☐ Very poor ☐ Poor ☐ Okay ☐ Good ☐ Excellent

19. It is difficult for this child's parent(s) and I to work together.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

20. When there is a behavior problem, I have to solve it without help from this child's parent(s).

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

21. When there are difficulties or disputes about this child's educational planning, it takes too long to resolve them.

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

22. I feel this child's parent(s) respect my professional opinions, suggestions, and decisions concerning this child.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

23. *Did using the Home-School Log improve your working relationship with:*

This child's parents?

☐ Yes, our working relationship was *poor* prior to this, and *did improve* upon using the Home-School Log.
☐ Yes, our working relationship was *fine* prior to this, but it *did improve* upon using the Home-School Log.
☐ No, our working relationship was *fine* prior to this, but *did not improve*.
☐ No, our working relationship was *poor* prior to this, and *did not improve*.
☐ No, using the Home-School Log made our working relationship *worse*.

Explain: _____

The other educators and providers working with this student?

☐ Yes, our working relationship was *poor* prior to this, and *did improve* upon using the Home-School Log.
☐ Yes, our working relationship was *fine* prior to this, but it *did improve* upon using the Home-School Log.
☐ No, our working relationship was *fine* prior to this, but *did not improve*.
☐ No, our working relationship was *poor* prior to this, and *did not improve*.
☐ No, using the Home-School Log made our working relationship *worse*.

Explain: _____

24. How often do you collect data on this child's behavioral progress?

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

25. This child's team of in-school and outside professionals regularly communicates to evaluate whether this child's program(s) continues to meet his/her needs. ☐ N/A

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

26. How often are decisions made about this child's educational programming or services?

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

27. How often do you involve this child's parent(s) in decisions made about this child's educational programming or services?

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

28. *Please indicate which of the following ways you used the data from the Home-School Log (<u>select all that apply):</u>*

☐ To inform my own decisions regarding student behavior

☐ To inform a team's (e.g., planning and placement team) decisions regarding student behavior

☐ To inform administrative decisions regarding student behavior

☐ To communicate with parents regarding their child's behavior

29. *Using the following scale, please indicate how <u>frequently</u> you used the Home-School Log data for each of the assessment purposes below.*

1 = Daily 2 = Weekly 3 = Monthly 4 = Quarterly 5 = Never

- For early identification of problem behavior _____
- For identification of specific behavior problems _____
- To inform intervention development _____
- To monitor student response to an intervention _____
- To gather parental input about factors that may impact the student _____

30. *Using the following scale, please indicate how <u>useful</u> the Home-School Log data were for each of the assessment purposes below.*

1 = Not at all useful 2 = Somewhat useful 3 = Very useful

- For early identification of problem behavior _____
- For identification of specific behavior problems _____
- To inform intervention development _____
- To monitor student response to an intervention _____
- To gather parental input about factors that may impact student _____

31. *Collecting data through the Home-School Log improved my ability to assess this child's behavior*.

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

32. *Evaluating data from the Home-School Log improved the decisions I have made regarding this child's behavior.*

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

33. Overall, I am satisfied with my experience using the Home-School Log.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

34. How easy or difficult was it to use the log daily?

☐ Very difficult ☐ Difficult ☐ Easy ☐ Very Easy

*35. What did you like about using the Home-School Log?*_____

_____

_____

_____

*36. What did you dislike about using the Home-School Log?*_____

_____

_____

_____

37. Have you ever used another method to track student behavior?

☐ Yes ☐ No

If Yes,

- Which methods? _____

  _____

  _____

- Compared to these other methods, the Home-School Log was:

  ☐ much easier to use.
  ☐ somewhat easier to use.
  ☐ somewhat more difficult to use
  ☐ much more difficult to use.

- Compared to these other methods, the Home-School Log was:

  ☐ much more useful.
  ☐ somewhat more useful.
  ☐ somewhat less useful.
  ☐ much less useful.

38. Do you have any suggestions as to how communication among parents, educators, and service providers can be improved? _____

_____

_____

Thank you for your participation!

Please return this survey to Rose Jaffery in the envelope provided. If you have any questions you may contact Rose at (555) 555-1234.

Appendix F

Post-Intervention Survey for Parents

Your Name: _____ Date: _____

Relation to Student: _____

Student's Name: _____

Please complete the following survey by checkmarking or writing in the appropriate response. Your responses will be kept confidential and will only be viewed by the researchers. Your responses are important, so please answer all questions honestly. You may contact the graduate student researcher, Rose Jaffery, at (555) 555-1234 if you have any questions. Please think of the **weeks since you started using the Home-School Log** when responding to the following items.

1. *Using the following scale, please indicate how **frequently** you communicate with each of your child's educators and service providers, in more than just a passing conversation (e.g., about the child's progress, changes at home, concerns). This can include information communicated using the Home-School Log.*

1 = Daily 2 = Weekly 3 = Monthly 4 = Quarterly 5 = Never 6 = N/A

Educators/Service Providers at School

_____ Regular Classroom Teacher(s)
_____ Special Education Teacher(s)
_____ Speech/Language Therapist
_____ Occupational Therapist
_____ Physical Therapist
_____ _____

_____ School Psychologist
_____ Social Worker
_____ School Counselor
_____ Paraprofessional(s)
_____ Behavioral Consultant (e.g., BCBA)
_____ _____

Service Providers Outside of School (e.g., behavior therapist, speech, occupational therapy, psychiatrist)

_____ _____
_____ _____
_____ _____

_____ _____
_____ _____
_____ _____

2. Write in the number that best describes how much you agree or disagree with the following statement for each individual listed below: *I am satisfied with the **amount** of communication I have with my child's educators and service providers.*

1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree 5 = N/A

Educators/Service Providers at School

_____ Regular Classroom Teacher(s)

_____ Special Education Teacher(s)

_____ Speech/Language Therapist

_____ Occupational Therapist

_____ Physical Therapist

_____ _____

_____ School Psychologist

_____ Social Worker

_____ School Counselor

_____ Paraprofessional(s)

_____ Behavioral Consultant (BCBA)

_____ _____

Service Providers Outside of School (e.g., behavior therapist, speech, occupational therapy, psychiatrist)

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

3. Write in the number that best describes how much you agree or disagree with the following statement for each individual listed below: *I am satisfied with the **quality** of communication I have with my child's educators and service providers.*

1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree 5 = N/A

Educators/Service Providers at School

_____ Regular Classroom Teacher(s)

_____ Special Education Teacher(s)

_____ Speech/Language Therapist

_____ Occupational Therapist

_____ Physical Therapist

_____ _____

_____ School Psychologist

_____ Social Worker

_____ School Counselor

_____ Paraprofessional(s)

_____ Behavioral Consultant (e.g., BCBA)

_____ _____

3. (continued) *I am satisfied with the **quality** of communication I have with my child's educators and service providers (e.g., they listen and respond to my concerns, they provide useful recommendations).*

1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree 5 = N/A

Service Providers Outside of School (e.g., behavior therapist, speech, occupational therapy, psychiatrist)

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

4. *My child's in-school educators/service providers share information/data with me*

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

5. *My child's service providers outside of school share information/data with me*

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

6. *Overall, I am satisfied with the amount of information I get from school about how my child is doing.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

7. *Overall, I am satisfied with the amount of information I get from service providers outside the school about how my child is doing.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

8. *I let my child's educators know within one week if I have a concern about my child or if there is something important that his/her educators should know about.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

9. *I let my child's service providers know within one week if I have a concern about my child or if there is something important that the providers should know about.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

*10. How do you typically communicate with each of your child's <u>in-school</u> educators and service providers? **Check all that apply** and also mark how frequently (e.g., daily, weekly, monthly, annually) you use each method.*

☐ N/A - I do not communicate with any of this child's in-school educators/ service providers

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

In-School Professional: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

*11. How do you typically communicate with each of your child's service providers <u>outside of school</u>? **Check all that apply** and also mark how frequently (e.g., daily, weekly, monthly, annually) you use each method.*

☐ N/A - I do not communicate with any of this child's outside service providers

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

Professional Outside of School: _____

Method:	☐ In person	☐ Phone	☐ Email	☐ Note or Log	☐ Other: _____
How frequently:	_____	_____	_____	_____	_____

12. *When my child has a particularly difficult time during the school day, I am informed within two days.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

13. *When my child has a particularly difficult time during a session outside of school, I am informed about it from the service provider within two days.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

14. *When my child has a particularly good day at school, I am informed within two days.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

15. *When my child has a particularly good session outside of school, I am informed about it from the service provider within two days.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

16. *My child's educators and providers at school answer my questions in a timely manner.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree ☐ N/A

17. *My child's service providers outside of school answer my questions in a timely manner.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree ☐ N/A

18. *My child and I talk about what he or she is learning in school.*

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A (e.g., communication not possible)

19. *I feel comfortable talking with my child's in-school educators/providers about my child.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

20. *I feel comfortable talking with my child's out-of-school service provider(s) about my child.*

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

Since starting to use the Home-School Log…	**Never**	**Daily**	**Weekly**	**Monthly**	**Quarterly**	**Annually**
21. Please indicate how frequently you communicate (two-way) with your child's in-school educators/providers for:						
positive reasons.						
routine matters.						
progress updates.						
concerns.						
22. Please indicate how frequently you communicate (two-way) with your child's out-of-school provider(s) for:						
positive reasons.						
routine matters.						
progress updates.						
concerns.						
23. How often does the information that your child's educators at school send home help you to:						
work with your child?						
keep you informed about your child's progress?						
stimulate communication between you and your child?						
24. How often does the information that your child's providers outside of school send home help you to:						
work with your child?						
keep you informed about your child's progress?						
stimulate communication between you and your child?						

25. Using the Home-School Log helped improve my ability to get my child to communicate about things that s/he did at school.

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree ☐ N/A (e.g., communication not possible)

26. *Overall, using the Home-School Log improved my communication with my child's <u>in-school providers/educators</u> (e.g., school psychologists, teachers, speech/language pathologists, occupational therapists, social workers, school counselors).*

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

Explain: _____

27. Overall, using the Home-School Log improved my communication with my child's <u>providers outside of school</u> (e.g., speech/language therapist, occupational therapist, social worker, psychiatrist, behavior interventionist). ☐ N/A

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

Explain: _____

28. Overall, my working relationship with my child's educator(s)and service providers is

☐ Very poor ☐ Poor ☐ Okay ☐ Good ☐ Excellent

29. When there are difficulties or disputes with my child's in-school educators and/or providers, it takes too long to resolve them.

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

30. It is difficult for my child's in-school educators/providers, out-of-school providers, and me to work together.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

31. When there is a behavior problem at home, I have to solve it without help from my child's educator(s) and service providers.

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

32. I feel my child's educators(s) and service provider(s) value my opinions, suggestions, and decisions concerning my child.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

33. Educators and service providers treat me as a valued team member.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

34. How often do your child's educators try to involve you in decisions made about your child's education?

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

35. *Overall, did using the Home-School Log improve your working relationship with your child's: Educators/Service Providers at School?*

☐ Yes, our working relationship was *poor* prior to this, and *did improve* upon using the Home-School Log.
☐ Yes, our working relationship was *fine* prior to this, but it *did improve* upon using the Home-School Log.
☐ No, our working relationship was *fine* prior to this, but *did not improve*.
☐ No, our working relationship was *poor* prior to this, and *did not improve*.
☐ No, using the Home-School Log made our working relationship *worse*.

Explain: _____

Service Providers Outside of School?

☐ Yes, our working relationship was *poor* prior to this, and *did improve* upon using the Home-School Log.
☐ Yes, our working relationship was *fine* prior to this, but it *did improve* upon using the Home-School Log.
☐ No, our working relationship was *fine* prior to this, but *did not improve*.
☐ No, our working relationship was *poor* prior to this, and *did not improve*.
☐ No, using the Home-School Log made our working relationship *worse*.

Explain: _____

36. How often do you track your child's behavioral progress at home?

☐ Never ☐ Sometimes ☐ Usually ☐ Always ☐ N/A

37. I am satisfied with how well my child's team communicates and shares information among each team member.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

38. My child's team of in-school and outside professionals regularly communicates to evaluate whether my child's program(s) continues to meet his/her needs.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

39. My child's in-school educators/providers give me enough information to know whether or not my child is making appropriate progress.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

40. My child's service providers outside of school give me enough information to know whether or not my child is making appropriate progress.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

41. Decisions are made about my child's educational programming or services

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

42. I am involved in decisions made about my child's educational programming or services

☐ Daily ☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annually ☐ Never

43. *When educators/providers at school communicate with me about my child, I wish they would*: _____

_____

_____

44. *When service providers outside the school communicate with me about my child, I wish they would*: _____

_____

_____

45. *Collecting information through the Home-School Log improved my ability to track my child's behavior*.

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

46. *Evaluating information in the Home-School Log improved the decisions I have made regarding my child's behavior.*

☐ Strongly disagree ☐ Disagree ☐ Neither agree nor disagree ☐ Agree ☐ Strongly agree

47. Overall, I am satisfied with my experience using the Home-School Log.

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

48. How easy or difficult was it to use the log daily?

☐ Very difficult ☐ Difficult ☐ Easy ☐ Very Easy

*49. What did you like about using the Home-School Log?*_____

_____

_____

*50. What did you dislike about using the Home-School Log?*_____

_____

_____

51. Have you ever used another method to communicate with your child's educators?

☐ Yes ☐ No

If Yes,

- Which methods? _____

  _____

  _____

- Compared to these other methods, this Home-School Log was:

  ☐ Much easier to use
  ☐ Somewhat easier to use
  ☐ Somewhat more difficult to use
  ☐ Much more difficult to use

- Compared to these other methods, this Home-School Log was:

  ☐ Much more useful
  ☐ Somewhat more useful
  ☐ Somewhat less useful
  ☐ Much less useful

52. *Do you have any suggestions as to how communication among parents, educators, and service providers can be improved?* _____

_____

_____

Thank you for your participation!

Please return this survey to Rose Jaffery in the envelope provided. If you have any questions you may contact Rose at (555) 555-1234.

Appendix G

Parent Questionnaire

Student ID: _____ **Your Name: _____** **Relation to Student: _____**

Directions: Please complete the following questionnaire by circling the number that corresponds to your response. Some questions have N/A (Not Applicable) as an option. Mark N/A if the statement is not applicable to your child (e.g., if your child does not receive homework, or if your child can not have conversations with you). Your responses are very important so please answer as honestly as possible. All responses and personal information will be kept confidential; only the researchers will see your responses.

Please indicate how much you AGREE or DISAGREE with each of the following statements. Please think about the current school year as you consider each statement.

		Disagree very strongly	Disagree	Disagree just a little	Agree just a little	Agree	Agree very strongly
1	I know how to help my child do well in school.	1	2	3	4	5	6
2	I don't know if I'm getting through to my child.	1	2	3	4	5	6
3	I don't know how to help my child make good grades in school.	1	2	3	4	5	6
4	I feel successful about my efforts to help my child learn.	1	2	3	4	5	6
5	I don't know how to help my child learn.	1	2	3	4	5	6
6	Teachers at this school are interested and cooperative when they discuss my child.	1	2	3	4	5	6
7	I feel welcome at this school.	1	2	3	4	5	6
8	This school's staff contacts me promptly about any problems involving my child.	1	2	3	4	5	6
9	The teachers at this school keep me informed about my child's progress in school.	1	2	3	4	5	6

Please indicate HOW OFTEN the following have happened SINCE THE BEGINNING OF THIS SCHOOL YEAR?

		N/A	never	1 or 2 times this year	4 or 5 times this year	once a week	a few times a week	daily
10	My child's teacher asked me or expected me to help my child with homework.	0	1	2	3	4	5	6
11	My child's teacher asked me to talk with my child about the school day.		1	2	3	4	5	6
12	My child's teacher asked me to attend a special event at school.		1	2	3	4	5	6
13	My child's teacher asked me to help out at the school.		1	2	3	4	5	6
14	My child's teacher contacted me (for example, sent a note, phoned, e-mailed).		1	2	3	4	5	6

Parents have many different beliefs about their level of responsibility in their children's education. Please respond to the following statements by indicating the degree to which YOU BELIEVE you are responsible for the following.

	I believe it's my responsibility to…	N/A	Disagree very strongly	Disagree	Disagree just a little	Agree just a little	Agree	Agree very strongly
15	…communicate with my child's teacher regularly.		1	2	3	4	5	6
16	…help my child with homework.	0	1	2	3	4	5	6
17	…make sure the school has what it needs.		1	2	3	4	5	6
18	...support decisions made by the teacher.		1	2	3	4	5	6
19	...stay on top of things at school (e.g., child's progress, lessons in class, assignments, events going on at school).		1	2	3	4	5	6
20	…explain tough assignments to my child.	0	1	2	3	4	5	6
21	…talk with other parents from my child's school.		1	2	3	4	5	6
22	…make the school better.		1	2	3	4	5	6
23	…talk with my child about the school day.	0	1	2	3	4	5	6

Please indicate how much you AGREE or DISAGREE with each of the following statements, if applicable. Please think about THE CURRENT SCHOOL YEAR as you consider each statement.

		N/A	Disagree very strongly	Disagree	Disagree just a little	Agree just a little	Agree	Agree very strongly
24	I know enough about the subjects of my child's homework to help him or her.	0	1	2	3	4	5	6
25	I have enough time and energy to communicate effectively with my child's teacher.		1	2	3	4	5	6
26	I know how to supervise while my child does his/her homework.	0	1	2	3	4	5	6
27	I know how to explain things to my child about his or her homework.	0	1	2	3	4	5	6
28	I have enough time and energy to help my child with homework.	0	1	2	3	4	5	6
29	I have enough time and energy to supervise my child while he does his/her homework.	0	1	2	3	4	5	6

Parents and families do many different things when they are involved in their children's education. We would like to know how often you have done the following SINCE THE BEGINNING OF THE SCHOOL YEAR.

	Someone in this family...	N/A	never	1 or 2 times this year	4 or 5 times this year	once a week	a few times a week	daily
30	...talks with this child about the school day.	0	1	2	3	4	5	6
31	…supervises while this child does his/her homework.	0	1	2	3	4	5	6
32	...helps this child study for tests.	0	1	2	3	4	5	6
33	...practices spelling, math or other skills with this child.	0	1	2	3	4	5	6
34	...reads with this child.		1	2	3	4	5	6

Thank you for your participation! Please return the completed questionnaire to Rose Jaffery in the envelope provided.
If you have any questions you may contact Rose at (555) 555-1234.

Appendix H

Teacher Questionnaire

Student ID: _____ **Your Name:** _____ **Relation to Student:** _____

Directions: Please complete the following questionnaire by circling the number that corresponds to your response. Some questions have N/A (Not Applicable) as an option. Mark N/A if the statement is not applicable (e.g., if this child does not receive homework). Your responses are very important so please answer as honestly as possible. All responses and personal information will be kept confidential; only the researchers will see your responses.

Please indicate how much you AGREE or DISAGREE with each of the following statements. Please think about THE CURRENT SCHOOL YEAR as you consider each statement.

		Disagree very strongly	Disagree	Disagree just a little	Agree just a little	Agree	Agree very strongly
1	Parent involvement is important for a good school.	1	2	3	4	5	6
2	Most parents know how to help their children with schoolwork at home.	1	2	3	4	5	6
3	Every family has some strengths that can be tapped to increase student success in school.	1	2	3	4	5	6
4	All parents can learn ways to help their children with schoolwork at home, if shown how.	1	2	3	4	5	6
5	Parent involvement can help teachers be more effective with more students.	1	2	3	4	5	6
6	Parents of children at this school want to be involved more than they are.	1	2	3	4	5	6
7	Parent involvement is important for student success in school.	1	2	3	4	5	6
8	This school views parents as important partners.	1	2	3	4	5	6

Please indicate HOW IMPORTANT you believe each of the following is in your own teaching and parent-involvement practices. Please think about THE CURRENT SCHOOL YEAR as you consider each statement.

		Not at all important	Not important	Not very important	Somewhat important	Important	Very Important
9	Having a conference with each of my students' parents at least once a year.	1	2	3	4	5	6
10	Contacting parents about their children's problems or lack of sufficient progress.	1	2	3	4	5	6
11	Contacting parents when their children do something well or improve.	1	2	3	4	5	6
12	Involving parents as volunteers in my classroom.	1	2	3	4	5	6
13	Telling parents about the target skills their children must learn in each subject I teach.	1	2	3	4	5	6
14	Providing specific activities for parents to do with their children in order to improve their grades.	1	2	3	4	5	6
15	Giving parents ideas about discussing specific TV shows with their children.	1	2	3	4	5	6
16	Assigning homework that requires parents to interact with their children.	1	2	3	4	5	6

		Not at all important	Not important	Not very important	Somewhat important	Important	Very Important
17	Suggesting ways to practice spelling or other skills at home before a test.	1	2	3	4	5	6
18	Asking parents to listen to their children read.	1	2	3	4	5	6
19	Asking my students' parents to help their children with homework.	1	2	3	4	5	6
20	Asking my students' parents to ask their child(ren) about the school day.	1	2	3	4	5	6
21	Giving parents ideas to help them become effective advocates for their children.	1	2	3	4	5	6
22	Sending home 'letters' telling parents what the children have been learning and doing in class.	1	2	3	4	5	6

Please indicate how much you AGREE or DISAGREE with each of the following statements. Please think about THE PARENTS PARTICIPTING IN THIS STUDY and THE CURRENT SCHOOL YEAR as you consider each statement.

		Disagree very strongly	Disagree	Disagree just a little	Agree just a little	Agree	Agree very strongly
23	This child's parents help their child learn.	1	2	3	4	5	6
24	This child's parents have little influence on their child's motivation to do well in school.	1	2	3	4	5	6
25	If this child's parents try really hard, they can help their child learn even when the child is unmotivated.	1	2	3	4	5	6
26	This child's parents feel successful about helping their child learn.	1	2	3	4	5	6
27	This child's parents don't know how to help their child make educational progress.	1	2	3	4	5	6
28	This child's parents help their child with school work at home.	1	2	3	4	5	6
29	This child's parents make a significant, positive educational difference in their child's life.	1	2	3	4	5	6

Please indicate HOW MANY TIMES THIS STUDENT'S PARENT(S) have participated in the following activities this year. Please record your best estimate for each item, and then respond to the 'overall confidence rating' at the end of this section.

		N/A	Never	Once this year	Once each marking period	Once a month	Once every 1-2 weeks	1+ times each week
30	Attend scheduled parent-teacher conferences.	0	1	2	3	4	5	6
31	Attend meetings or workshops at school.	0	1	2	3	4	5	6
32	Contact me when their child is having a problem with learning.	0	1	2	3	4	5	6
33	Contact me when they have something really good to report about their child's learning.	0	1	2	3	4	5	6
34	Volunteer in my classroom or in the school.	0	1	2	3	4	5	6
35	Ask me for specific activities they can do at home with their child.	0	1	2	3	4	5	6

		N/A	Never	Once this year	Once each marking period	Once a month	Once every 1-2 weeks	1+ times each week
36	Help their child with homework.	0	1	2	3	4	5	6
37	Listen to their child read.	0	1	2	3	4	5	6
38	Give me information about their child's needs, interests, or talents.	0	1	2	3	4	5	6
39	Talk to their child about the school day.	0	1	2	3	4	5	6
40	Visit my classroom at school.	0	1	2	3	4	5	6

41 In general, how much confidence do you have in the accuracy of your estimates on the items above? (Please circle the response that's most appropriate for you)

I am completely confident | I am pretty confident | I am just somewhat confident | I am not very confident

42 How many opportunities has this child's parents had this year to attend scheduled:

parent-teacher conferences? _____ team meetings? _____

Please indicate HOW OFTEN YOU have done each of the following with THIS CHILD'S PARENTS SINCE THE BEGINNING OF THIS SCHOOL YEAR?

		N/A	Never	Once this year	Once each marking period	Once a month	Once every 1-2 weeks	1+ times each week
43	Schedule a conference with the parent.	0	1	2	3	4	5	6
44	Contact the parent if the child has problems or experiences insufficient progress.	0	1	2	3	4	5	6
45	Contact the parent if the child does something well or improves.	0	1	2	3	4	5	6
46	Invite the parent to be a volunteer in my classroom.	0	1	2	3	4	5	6
47	Tell the parent about the target skills the child must learn in each subject I teach.	0	1	2	3	4	5	6
48	Provide specific activities for the parent to do with the child in order to reinforce/practice the child's skills.	0	1	2	3	4	5	6
49	Assign homework that requires the parent to interact with the child.	0	1	2	3	4	5	6
50	Suggest ways to practice spelling or other skills at home before a test.	0	1	2	3	4	5	6
51	Ask the parent to listen to the child read.	0	1	2	3	4	5	6
52	Ask the parent to help the child with homework.	0	1	2	3	4	5	6
53	Encourage the parent to ask the child about the school day.	0	1	2	3	4	5	6
54	Ask the parent to visit my classroom.	0	1	2	3	4	5	6
55	Give the parent ideas to help him or her become an effective advocate for the child.	0	1	2	3	4	5	6
56	Send home 'letters' telling parents what the children have been learning and doing in class.	0	1	2	3	4	5	6

Thank you for your participation! Please return the completed questionnaire to Rose Jaffery in the envelope provided.
If you have any questions you may contact Rose at (555) 555-5555.

Appendix I: **Systematic Direct Observation Form**

Date: _____ M T W Th F Time:_____ to _____	Student: Rater:	Activity Description:

Behavior Descriptions:

Academically Engaged (AE) is actively or passively participating in the classroom activity. For example: writing, raising hand, answering a question, talking about a lesson, listening to the teacher, reading silently, or looking at instructional materials.

Disruptive (DB) is student action that interrupts regular school or classroom activity. For example: out of seat, fidgeting, playing with objects, acting aggressively, talking/yelling about things that are unrelated to classroom instruction.

Directions: Observations should occur over a 15 min period with 15-sec intervals. Momentary time sampling for Engagement and partial interval recording for Disruptive will be used. Use / to indicate the behavior was observed at the specified interval mark. During the shaded intervals, a peer will also be observed.

		Minute 1					**Minute 2**					**Minute 3**				
		1	2	3	4		5	6	7	8		9	10	11	12	
Moment	**AE**															
Partial	**DB**															
	Other															
	Other															
		Minute 4					**Minute 5**					**Minute 6**				
		13	14	15	16		17	18	19	20		21	22	23	24	
Moment	**AE**															
Partial	**DB**															
	Other															
	Other															
		Minute 7					**Minute 8**					**Minute 9**				
		25	26	27	28		29	30	31	32		33	34	35	36	
Moment	**AE**															
Partial	**DB**															
	Other															
	Other															
		Minute 10					**Minute 11**					**Minute 12**				
		37	38	39	40		41	42	43	44		45	46	47	48	
Moment	**AE**															
Partial	**DB**															
	Other															
	Other															
		Minute 13					**Minute 14**					**Minute 15**				
		49	50	51	52		53	54	55	56		57	58	59	60	
Moment	**AE**															
Partial	**DB**															
	Other															
	Other															

Target:					Peers:				
	AE	_____	% AE	_____		AE	_____	% AE	_____
	DB	_____	% DB	_____		DB	_____	% DB	_____
	Other	_____	%	_____		Other	_____	%	_____
	Other	_____	%	_____		Other	_____	%	_____

Baseline Direct Behavior Rating-SIS Form

Student ID: _____ Date: _____ Day of Week: M T W Th F

☐ Check if no ratings today → Reason: ☐ Student was absent ☐ No School ☐ Other: _____

Rater: _____ **Position**: _____ **Activity Description**: _____

Observation Time:

Start:_____

End: _____

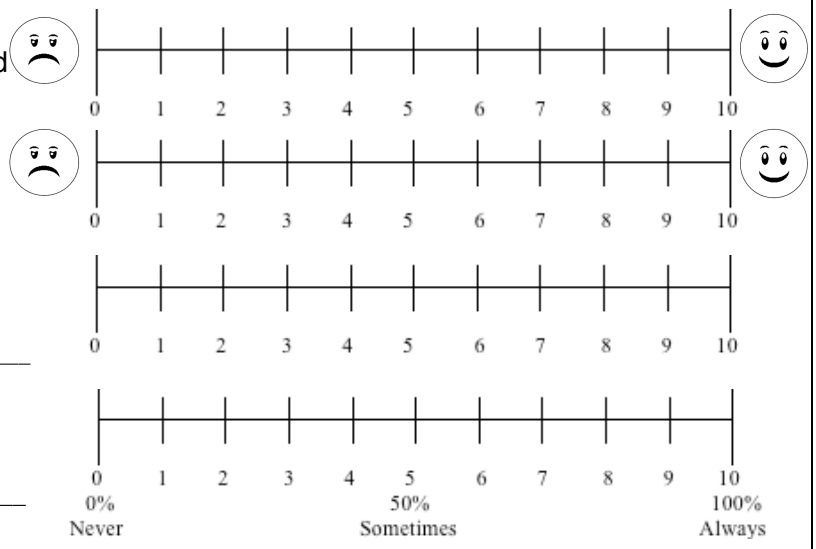
☐ Check if no rating today

Reason for no rating:

☐ Unable to observe student sufficiently

☐ Unable to rate behavior immediately following observation

☐ _____



Comments:

Rater: _____ **Position**: _____ **Activity Description**: _____

Observation Time:

Start:_____

End: _____

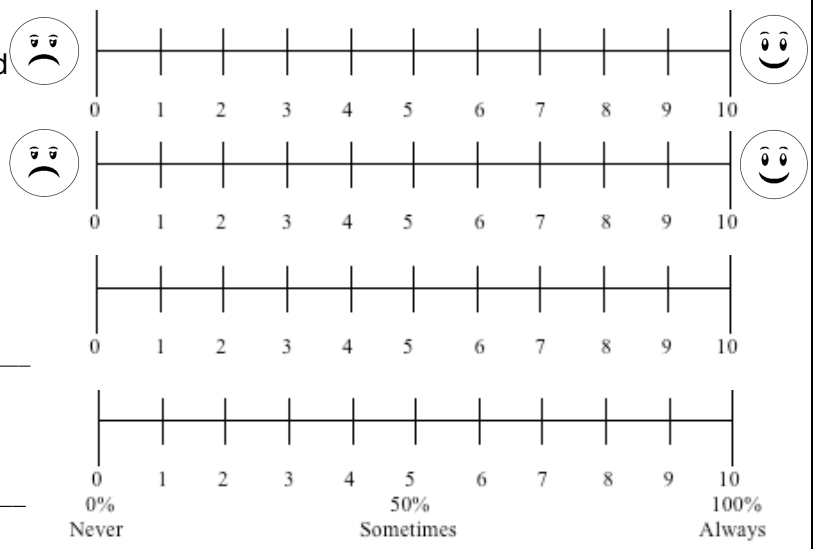
☐ Check if no rating today

Reason for no rating:

☐ Unable to observe student sufficiently

☐ Unable to rate behavior immediately following observation

☐ _____



Comments:

Home-School-Community Log

Instructions

For All School-Based Educators/Service Providers:

- Fill in Rater (your name), Position (e.g., teacher, SLP, OT), Activity Description, and Observation Time OR checkmark that no rating was completed today and why.
- Review Behavioral Descriptions (see back of this page)
- Place a mark along the line that best reflects the percentage of total time the student exhibited each target behavior.
- Note that the percentages do not need to total 100% across behaviors since some behaviors may co-occur.
- Briefly review previous day's Rating and Suggested Home Activity pages. Respond to pertinent parent or teacher comments from previous day's pages. Add own comments if desired.
- If unable to rate student immediately after the specified observation time, leave the scale blank. To the left of the scale check off "Unable to rate behavior immediately following observation period."

For Classroom Teacher:

- Make sure student has his/her binder at the beginning of the day and takes it with him/her to each target activity. Write student's name and today's date at top of today's Rating page. Make ratings during pre-determined activities (see above).
- Fill in top portion of the Home Activity page (i.e., "Ask your child about ____" "Suggested Activity: ____").
- Review, sign, and date the bottom of each Rating page before sending it home with the student.

For All Community-Based Service Providers:

- Review the Daily Ratings and Home Activity Pages and provide comments

For Parents/Primary Caregivers:

- Review and sign today's Rating page
    - If there are any direct questions for you in the "Comments" sections on the Rating page, you can write your response in the "Comments, Concerns or Questions" section of the Home Activity page
- Complete the Home Activity page
    - The bottom portion of the Home Activity can be completed in the morning, before the child goes to school.

Activities and Behaviors

*specific activities and behaviors to rate are determined by the student's team of educators and parents

Activities

Activity 1: _____ **Time (approx.):** _____

Activity 2: _____ **Time (approx.):** _____

Activity 3: _____ **Time (approx.):** _____

Behavior Descriptions

General Behaviors:
Academically engaged is actively or passively participating in the classroom activity.

- For example: writing, raising hand, answering a question, talking about a lesson, listening to the teacher, reading silently, or looking at instructional materials.

Non-Disruptive is student action that does not interrupt regular school or classroom activity.

- For example: staying in seat, waiting to be called upon before responding, keeping hands/feet to self, using objects appropriately, working quietly.

Individualized Behaviors:
Behavior: _____

Definition: _____

- For example: _____

  _____

  _____

Behavior: _____

Definition: _____

- For example: _____

  _____

  _____

Daily Ratings

Student ID: _____ Date: _____ Day of Week: M T W Th F

☐ Check if no ratings today → Reason: ☐ Student was absent ☐ No School ☐ Other: _____

PLEASE PRINT

Rater Initials: _____ **Position**: _____ **Activity Description**: _____

Observation Time:

Start:_____

End: _____

☐ Check if no rating today

Reason for no rating:

☐ Unable to observe student sufficiently

☐ Unable to rate behavior immediately following activity

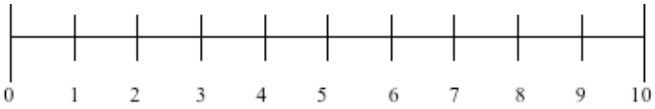
☐ Other: _____

Academically Engaged

Non-Disruptive

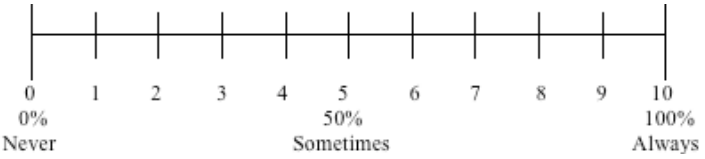
Other Target Behavior:

_____



Other Target Behavior:

_____



Comments:

Rater Initials: _____ **Position**: _____ **Activity Description**: _____

Observation Time:

Start:_____

End: _____

☐ Check if no rating today

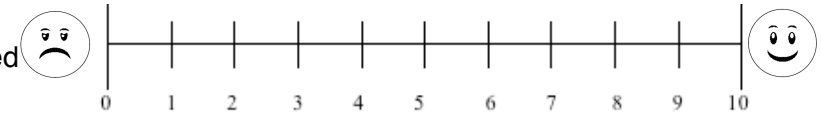
Reason for no rating:

☐ Unable to observe student sufficiently

☐ Unable to rate behavior immediately following activity

☐ Other: _____

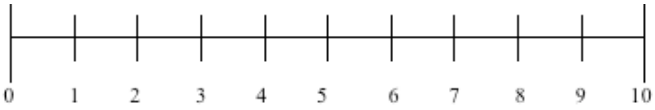
Academically Engaged



Non-Disruptive

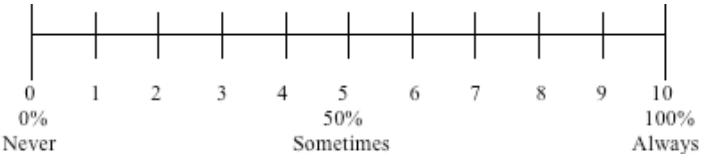
Other Target Behavior:

_____



Other Target Behavior:

_____



Comments:

Classroom Teacher's Initials: _____ **Date:** _____ ☐ **Reminder for Classroom Teacher:**

Parent's Initials: _____ **Date:** _____

Fill in Home Activity:"Ask me about: ___"

"Suggested Activity: ___"

Student ID: _____ Date: _____ Day of Week: M T W Th F

Home Activity

Look over the daily log and talk about your child's day….

PLEASE COMPLETE AFTER SCHOOL

Ask your child about: _____

Suggested Activity: _____

How Was He/She After School?

_____

_____

_____

_____

Comments, Concerns, or Questions (if any):

_____

_____

_____

_____

PLEASE COMPLETE IN THE MORNING BEFORE SCHOOL

Check all that apply: *At home my child …*

☐ Slept all night	☐ Had a good morning
☐ Ate all his/her breakfast	☐ Ate some breakfast
☐ Took his/her medication	☐ N/A

☐ Other (something is off, child is ill, had a change in routine/medication, etc.):_____

_____

Parent's Initials: _____ Date: _____ Classroom Teacher's Initials: _____ Date: _____

Appendix L

Student Progress Evaluation Template

Directions: Attach graphic printouts of student progress, and place an **X** in the appropriate boxes based on the data graph for each activity. Use multiple pages if necessary (i.e., if you have graphs from more than 3 activities to interpret). Things to consider for each activity/behavior: the level, consistency, overall change, and direction of change.

Date Range of the data: ___/___/___ to ___/___/___

	Goal reached?		**Overall Change:**					**Overall Consistency:**		
Activity/Behavior	Y	N	Large Improvement	Some Improvement	No change	Some Decline	Large Decline	High	Moderate	Low
Activity: _____										
Academically Engaged										
Non-Disruptive										
Other: _____										
Other: _____										
Activity: _____										
Academically Engaged										
Non-Disruptive										
Other: _____										
Other: _____										
Activity: _____										
Academically Engaged										
Non-Disruptive										
Other: _____										
Other: _____										

Overall Summary and Plan: (Based on all data; Checkmark/fill-in all that apply)

Overall improvement in desired direction? ☐ Yes ☐ Somewhat ☐ No

Need to work on: _____

Things to consider: _____

Plan: ☐ Make no change in supports (continue to monitor, make no change at this time)

☐ Recommended change in supports (e.g., change goal, rewards):_____

_____

Comments:

Completed by: Name _____ Position _____ Date _____

Appendix M

Treatment Integrity Checklist

Each day during the intervention: Researcher will refer to the Daily Rating and Home Activity pages in the Home-School Log and mark Yes or No if each item was completed.

Date: _____

Educators….

1. Rated behaviors on Daily Rating page during Activity 1 ☐ Yes ☐ No
2. Rated behaviors on Daily Rating page during Activity 2 ☐ Yes ☐ No
3. Rated behaviors on Daily Rating page during Activity 3 ☐ Yes ☐ No
4. Gave Home-School Log to student to take home ☐ Yes ☐ No
5. Classroom teacher provided talking point and/or Suggested Activity for parent to complete at home with the child ☐ Yes ☐ No
6. Classroom teacher completed Student Evaluation Template and placed in Home-School Log (when applicable) ☐ Yes ☐ No

Parent…

1. Provided comments about how child was after school/on the weekend ☐ Yes ☐ No
2. Completed Setting Events checklist ☐ Yes ☐ No
3. Initialed bottom of Daily Rating page ☐ Yes ☐ No
4. Gave Home-School Log to student to bring to school ☐ Yes ☐ No

Total Yes: _____ /Total possible: _____ = _____ → X 100 = _____%

Appendix N

Usage Rating Profile-Intervention Revised (URP-IR)

		Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1.	This intervention is an effective choice for addressing a variety of problems.	1	2	3	4	5	6
2.	I would need additional resources to carry out this intervention.	1	2	3	4	5	6
3.	I would be able to allocate my time to implement this intervention.	1	2	3	4	5	6
4.	I understand how to use this intervention.	1	2	3	4	5	6
5.	A positive home-school relationship is needed to implement this intervention.	1	2	3	4	5	6
6.	I am knowledgeable about the intervention procedures.	1	2	3	4	5	6
7.	The intervention is a fair way to handle the child's behavior problem.	1	2	3	4	5	6
8.	The total time required to implement the intervention procedures would be manageable.	1	2	3	4	5	6
9.	I would not be interested in implementing this intervention.	1	2	3	4	5	6
10.	My administrator would be supportive of my use of this intervention.	1	2	3	4	5	6
11.	I would have positive attitudes about implementing this intervention.	1	2	3	4	5	6
12.	This intervention is a good way to handle the child's behavior problem.	1	2	3	4	5	6
13.	Preparation of materials needed for this intervention would be minimal.	1	2	3	4	5	6
14.	Use of this intervention would be consistent with the mission of my school.	1	2	3	4	5	6

		Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
15.	Parental collaboration is required in order to use this intervention.	1	2	3	4	5	6
16.	Implementation of this intervention is well matched to what is expected in my job.	1	2	3	4	5	6
17.	Material resources needed for this intervention are reasonable.	1	2	3	4	5	6
18.	I would implement this intervention with a good deal of enthusiasm.	1	2	3	4	5	6
19.	This intervention is too complex to carry out accurately.	1	2	3	4	5	6
20.	These intervention procedures are consistent with the way things are done in my system.	1	2	3	4	5	6
21.	This intervention would not be disruptive to other students.	1	2	3	4	5	6
22.	I would be committed to carrying out this intervention.	1	2	3	4	5	6
23.	The intervention procedures easily fit in with my current practices.	1	2	3	4	5	6
24.	I would need consultative support to implement this intervention.	1	2	3	4	5	6
25.	I understand the procedures of this intervention.	1	2	3	4	5	6
26.	My work environment is conducive to implementation of an intervention like this one.	1	2	3	4	5	6
27.	The amount of time required for record keeping would be reasonable.	1	2	3	4	5	6
28.	Regular home-school communication is needed to implement intervention procedures.	1	2	3	4	5	6
29.	I would require additional professional development in order to implement this intervention.	1	2	3	4	5	6

URP- I SCORING GUIDE

Factor I: ACCEPTABILITY
Items - 1, 7, 9*, 11, 12, 18, 21, 22, 23

Factor II: UNDERSTANDING
Items – 4, 6, 25

Factor III: HOME SCHOOL COLLABORATION
Items – 5, 15, 28

Factor IV: FEASIBILITY
Items – 3, 8, 13, 17, 19*, 27

Factor V: SYSTEM CLIMATE
Items – 10, 14, 16, 20, 26

Factor VI: SYSTEM SUPPORT
Items – 2, 24, 29

* REVERSE CODE THESE ITEMS WHEN SCORING

Note: Use care when interpreting individual factors and in combination. For example, a LOW score for system support reflects greater ability to independently implement the intervention. Thus, if aggregating across all factors to find an overall mean indicative of more favorable responses, consider reverse coding all items in this factor.

Citation for the measure:
Chafouleas, S.M., Briesch, A.M., Neugebauer, S. R., & Riley-Tillman, T. C. (2011). *Usage Rating Profile – Intervention (Revised)*. Storrs, CT: University of Connecticut.

Suggested citation for the associated publication is as follows:
Briesch, A.M., Chafouleas, S. M., Neugebauer, S. R., & Riley-Tillman, T.C., (2011). Exploring the multi-dimensional influences on intervention usage: Revision of the Usage Rating Profile-Intervention (URP-IR).